Punjabi
Phonetic Reader

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PUNJABI PHONETIC READER

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B. G. MISRA

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FOREWORD

The Central Institute of Indian Languages was set up on the 17th July, 1969 with a view to assisting and co-ordinating the development of Indian Languages. The Institute was charged with the responsibility of serving as a nucleus to bring together all the research and literary out-put from the various linguistic streams to a common head and narrowing the gap between basic research and developmental research in the fields of languages and linguistics in India.

The Institute and its five Regional Language Centres are thus engaged in research and teaching which lead to the publication of a wide-ranging variety of materials. Preparation of materials designed for teaching/learning all different levels and suited to specific needs is one of the major areas of interest of the Institute. Basic research relating to the acquisition of language and study of language in its manifold psycho-social relations constitutes another broad range of interest. The publications include materials produced by the members of the staff of the Central Institute of Indian Languages and its Regional Language Centres and associated scholars from universities and institutions both Indian and foreign.

The Central Institute of Indian Languages initiated the *Phonetic Reader Series* in Indian Languages ten years ago with a view to presenting the range of phonetic variation obtaining in this subcontinent and demonstrating the closeness of languages on the basis of phonetic patterning. These *Readers* are biased towards learning the sound systems of languages. While, by and large these objectives have been achieved fairly by the publications of the Phonetic Reader Series, certain pedagogical and theoretical questions about the design and suggestions made to make the *Readers* useful. These points will be certainly incorporated in forthoming *Readers*. The Phonetic Readers continue to supply a wide range of information on the phonetics of the languages and help the learners with practical tips. It is hoped that this series will be of interest to both scholars who are interested in Phonetic Studies and practical learners of languages who wish to make a beginning in their language study.

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Mysore-6.

D. P. PATTANAYAK
Director

PREFACE

Language in its spoken form is a sequence of sounds articulated with a certain speed and with half-pauses and pauses at predetermined junctures. The listener perceives these sounds and maps them into meaningful units in order to receive the message. Thus any second language instruction must necessarily emphasize strongly on the development of correct pronunciation. It means that the learner should develop the ability to recognise the sounds of a language in isolation as well as in sequence, and should be able to produce the sounds of that language by developing the flexibility and manoeuverability of the vocal organs to go through the appropriate motions in articulation, If such a person is going to teach these languages he needs sufficient training so that he acquires the ability to perceive and discriminate correct pronunciation from incorrect and impart instruction in correct enunciation of the sounds of that language in isolation as well as in sequence.

Another aspect of language instruction that is closely related with the teaching of pronunciation is the development of an automatic association between speech sounds and their written forms. This in due course results in a mastery over the orthography of the language being learnt or taught.

The Phonetic Readers in this series have been prepared with the above objectives. They are primarily intended to cater to the needs of the trainees who receive instruction in an Indian Language other than their mother tongue at the Regional Language Centres of the Central Institute of Indian Languages. The aim of such training is not only to teach a specific language but also to create a cadre of trained second language teachers in the country. The trainees after the completion of the language instruction are expected to teach these languages to the students in their high school when they go back.

In the first chapter of this Phonetic Reader a brief outline of the organs of speech, their functions and classification of speech sounds have been given. In this description care is taken to give precise and accurate phonetic information with the use of as little of technical terminology and complexity as possible, the objective being not to give a comprehensive description of the speech organs and their functions but to give only that much information which is sufficient to meet the objective of correct perception, discrimination and reproduction of sounds and for instruction in this regard.

In the second chapter a description of Punjabi speech sounds has been given in sufficient detail giving the movements of the vocal organs involved in the articulation of the specific sounds together with the phonetic labels for them. The details of the description of the sounds in question are given together with examples of the occurrence of the the sounds in question.

The third chapter gives sufficient phonetic drills by taking different pairs of phonetically similar sounds so that the learners can be given adequate practice in the use of Punjabi sounds and may thus inculcate correct pronunciation.

In the fourth chapter a brief outline of the Punjabi Phonemics has been given. This section groups the relevant sounds into phonemes thus showing the distinctive elements in the sound system of the language. A table of vowel and consonant phonemes, phonemic distribution, gemination, free variation and allophonic distribution have been given.

The fifth chapter is devoted to Graphemics. In this section Phoneme-grapheme correspondence of the Gurumukhi script, accessory signs, conjunct letters etc. have been explained with the help of examples.

The Phonetic Reader has been used in classroom instruction during last seven years on seven batches of trainees at the Northern Regional Language Centre of the CIIL and has been revised in the light of the experience thus acquired.

The Phonetic Reader does not claim to be complete or perfect. There are certatin areas still left untouched. One of the lacunae is that the suprasegmental features like stress (word-stress as well as sentence-stress), intonation and sentence rhythm are not described. It is expected that the learners will follow the teacher in the classroom in this regard.

While the Phonetic Reader is written with the second language learner and teacher of Punjabi in the classroom in view, it is hoped that it will be useul to other categories of users as well. Suggestions and comments leading to further improvement of the work will be welcome.

B. G. MISRA

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Contents

Foreword
Preface
Acknowledgement
Introduction

1. Speech Organs And the Classification of Speech Sounds 1
    1.1. The Organs of Speech 1
    1.2. Classification of Speech Sounds 3
    1.2.1. Vowels 3
    1.2.2. Consonants 4
    1.3. Classification of Punjabi Speech Sounds 6
    1.3.1. Vowels 6
    1.3.2. Consonants 7
2. Description of Punjabi Speech Sounds 8
    2.1. Non-Nasalized Vowels 8
    2.1.1. [i] 8
    2.1.2. [ɪ] 9
    2.1.3. [e] 9
    2.1.4. [ɛ] 10
    2.1.5. [ə] 10
    2.1.6. [a] 11
    2.1.7. [u] 12
    2.1.8. [ʊ] 13
    2.1.9. [o] 13
    2.1.10. [ɔ] 14
    2.2. Nasalized Vowels 15
    2.2.1. [ĩ] 15
    2.2.2. [ɪ̃] 15

2.2.3. [ẽ] 16
2.2.4. [ɛ̃] 16
2.2.5. [ə̃] 17
2.2.6. [ã] 17
2.2.7. [ũ] 18
2.2.8. [ʊ̃] 18
2.2.9. [õ] 19
2.2.10. [ɔ̃] 19
2.3. Diphthongs 20
2.4. Tones 20
2.4.1. High-Tone 21
2.4.2. Mid-Tone 21
2.4.3. Low-Tone 22
2.5. Consonants 23
2.5.1. Stops 23
2.5.1.1. [p] 23
2.5.1.2. [ph] 24
2.5.1.3. [b] 24
2.5.1.4. [t] 25
2.5.1.5. [th] 26
2.5.1.6. [d] 26
2.5.1.7. [ṭ] 27
2.5.1.8. [ṭh] 28
2.5.1.9. [ḍ] 28
2.5.1.10. [k] 29
2.5.1.11. [kh] 30
2.5.1.12. [g] 30
2.5.2. Affricates 31
2.5.2.1. [c] 31

2.5.2.2. [ch] 32
2.5.2.3. [j] 33
2.5.3. Nasals 34
2.5.3.1. [m] 34
2.5.3.2. [n] 34
2.5.3.3. [ṇ] 35
2.5.4. Laterals 35
2.5.4.1. [l] 35
2.5.4.2. [ḷ] 36
2.5.5. Trill 37
2.5.5.1. [r] 37
2.5.6. Flap 37
2.5.6.1. [ṛ] 37
2.5.7. Fricatives 38
2.5.7.1 [s] 38
2.5.7.2. [š] 39
2.5.7.3. [z] 39
2.5.7.4. [f] 40
2.5.7.5. [x] 41
2.5.7.6. [g̣] 41
2.5.7.7. [h] 42
2.5.8. Frictionless Continuants (Semi-Vowels) 43
2.5.8.1. [y] 43
2.5.8.2. [v] 43

3. Phonetic Drills 44

4. Phonemics 63

5. Graphemics 71

Bibliography 82

Introduction

The aim of this Phonetic Reader is to introduce Punjabi sound system to non-native speakers/learners of the language and to help them in acquiring an appropriate pronunciation of these sounds. An attempt has been made, as far as possible, to describe the articulation and distribution of these sounds in simple and non-technical terms. Minute technical details have been avoided.

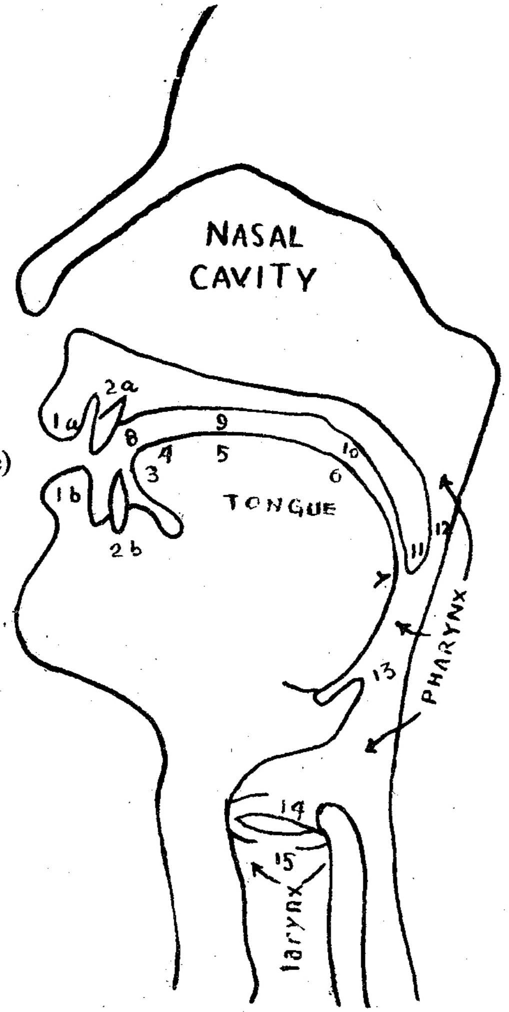
This Reader has five sections. The first section deals with description of speech organs. A sketch of speech-organs has been given to illustrate different organs of speech which are involved in the production of speech sounds. A classification of the speech sounds in general has also been given in the same section. This section also includes a classification of Punjabi speech sounds under different sub-types. In the second section, a detailed description of Punjabi sounds (vowels and consonants) has been given with illustrative examples. This description inlcudes the movements of the speech organs, phonetic description of the sounds and their distribution. The third section consists of different phonetic drills. Minimal pairs are given for practice in pronunciation and recognition of different sounds. In the fourth section a brief outline of Punjabi phonemics has been presented. In the fifth section an outline of Punjabi graphemics and its correspondence with Punjabi phonemics has been given.

1. Speech Organs and the Classification of Speech Sounds

1.1. The Organs of Speech

For understanding the description of various speech sounds it is important to have a basic knowledge of the organs of speech, involved in the production of different speech sounds. The learner should make himself familiar with the names of the organs of speech and their location in the speech tract. A schematic saggital section of the speech tract is given below :

1. a	Upper lip
1. b	Lower lip
2. a	Upper teeth
2. b	Lower teeth
3.	Tip of the tongue
4.	Front of the tongue
5.	Centre of the tongue
6.	Back of the tongue (also called dorsum)
7.	Root of the tongue
8.	Alveolar ridge (also called teeth ridge)
9.	Hard palate
10.	Soft palate (also called velum)
11.	Uvula
12.	Velic passage
13.	Epiglottis
14.	Glottis
15.	Vocal cords



SAGITTAL SECTION OF SPEECH TRACT

The organs of speech which are involved in the production of various speech sounds may be classified in two categories given below :

(i) Articulators

(ii) Points of Articulation

The articulators are those movable organs in the speech tract, which move towards the points of articulation when sounds are produced. The articulators are lower lip, tip of the tongue, blade of the tongue, centre of the tongue and back of the tongue. The points of articulation are relatively stationary organs of speech such as upper lip, upper teeth, teeth ridge, hard palate, soft palate, and uvula.

It is necessary to know the main functions of the organs of speech involved in the production of different speech sounds.

The upper and lower lips play a major role in the production of bilabial sounds like [p], [b] and [m]. The upper and lower teeth help in the production of dental speech sounds, like [t], [d] and [n]. Alveolar ridge, which is known as teeth ridge also, lies immediately behind the upper teeth. It plays an important role as a point of articulation in various speech sounds. The roof of the mouth has been divided into the hard palate and the soft palate. The hard palate lies beyond the alveolar ridge. This is the central part of the roof of the mouth. Retroflex sounds like [ṭ], [ḍ] etc. are produced at this point of articulation. The soft palate is the back part of the roof of the mouth. The soft palate is raised during the production of oral vowels. By raising the soft palate the passage to the nasal cavity is closed and the air current passes through the oral cavity. The soft palate can be lowered so that the air stream coming from lungs can get access to the nasal passage. Uvula is located immediately behind the soft palate. The velic passage leading into the nasal cavity can be closed off or left open by the raising or lowering of the soft palate.

The tongue which works as an articulator, has been divided into the tip of the tongue, front of the tongue, central part of the tongue, and the back of the tongue. Various parts of tongue help in the production of speech sounds.

Vocal cords play an important role in the production of speech sounds. The air stream coming from the lungs passes through the wind pipe. Larynx is the uppermost part of the wind pipe. It contains two lip like elastic membranes which are called vocal cords. If the vocal cords are brought very near to each other, while the air current passes through them, they vibrate. This gives rise to voicing. Speech sounds which are produced in this manner are called *voiced* sounds. In case the vocal cords are not brought near to each other and remain apart, the air current passes through them noiselessly, and the speech sounds thus produced are called *voiceless* sounds.

1.2. Classification of Speech Sounds

Speech sounds in a language are generally classified in two broad categories, viz., *segmental* and *suprasegmental*. Segmental sounds are further divided into *vowels* and *consonants*. Suprasegmental sounds are classified into stress, tone and intonation etc.

1.2.1. Vowels

In the production of vowels, air stream coming from the lungs passes through the oral cavity without any obstruction. While producing vowels, different parts of the tongue move to different heights within the oral cavity, the shape of the lips is modified. The movement of the different parts of the tongue like front, central or back and the shape of the lips and the heights to which a specific part of the tongue is raised in the production of different vowels. In the production of vowels, vocal cords may vibrate to produce voiced vowels. The nasal passage remains closed when the non-nasal or oral vowels are produced and it remains open allowing the air stream to pass through the nasal cavity thus producing nasalized vowels.

Besides a broad classification of vowels into nasal and non-nasal categories, the vowel sounds can be classified on the basis of the part of the tongue used in the articulation, the height of the tongue and the position of the lips, whether they are spread or rounded.

On the basis of the part of the tongue used in the process of articulation, vowels are classified as *front vowels*, *central vowels* and *back vowels*. On the basis of the height of the tongue in the articulation of vowels, the vowels have been classified as *high*, *lower-high*, *mid*, *mid-low* and *low* vowels. On the basis of the posture of lips during the production of vowels, vowels have been classified as rounded and unrounded vowels.

1.2.2. Consonants

While producing consonants the air current coming from the lungs is stopped or impeded at different points of articulation. The shape of the chambers through which the air passes is also modified accordingly.

In this Phonetic Reader, consonants have been classified as stops, affricates, nasals, laterals, trill, flap, fricatives and frictionless continuants.

Stops

In the production of stops, air steam coming from the lungs is blocked at some point or other in the oral cavity and the nasal passage is closed. The contact is released suddenly with explosion. Examples : [p] , [b] etc. are known as plosives.

Stops are sometimes produced by sucking the air in. As Punjabi stops are not implosives, the process of articulation for implosives is not described here.

Affricates

In the production of affricates, the air stream coming from the lungs is stopped in the oral cavity but the contact is withdrawn slowly causing friction when the air escapes. Examples :

[c], [j] etc.

Nasals

In the production of nasals, the air stream coming from the lungs is directed into nasal cavity by lowering the soft palate. When the contact of the articulaters is released the air passes through the nasal cavity, the oral cavity is in most of the cases fully closed. Examples : [m], and [n] etc.

Leterals

In the production of laterals the air steam coming from the lungs is blocked in the middle of mouth by raising the mid surface of the tongue and then the air is allowed to escape from the sides of the tongue. Expample : [l].

Trill

In the production of trill, there is a rapid vibration of the tip of the tongue against the teeth ridge. Example : [r].

Flap

In the production of flap, the tip of the tongue approaches the hard palate but does not make a contact. The air escapes between the tip of the tongue and palate. Example : [ṛ].

Fricatives

In the production of fricative, the air stream is pushed through a narrow opening which causes friction. Examples : [f], [s]

Frictionless continuants (Semi-Vowels)

In the production of frictionless continuants, the position of the speech organs remains same as in the case of fricatives but there is a weaker breath force so that no audible friction is heard. Examples : [y], [v].

On the basis of the points of articulation, consonants can be classified as bilabials, dentals, alveolars, retroflexs, palato-alveolars palatals, velars and glottals etc. The air flow coming from the lungs is checked or impeded at these points and the various speech sounds are produced. While describing the production of various speech sounds, the points of their articulation have also been indicated in this Reader.

1.3. Classification of Punjabi Speech sounds

The segmental speech sounds of Punjabi have been classified in two broad categories, e.g., **vowels** and **consonants.** Among the suprasegmental sounds only tone is considered in this Reader. Tone in Punjabi has been divided into high, mid and low tone.

1.3.1. Vowels

(i) Non-nasalized vowels

Front Unrounded Vowels :

[i], [ɪ], [e] and [ɛ]

Central Vowels :

[ə] and [a]

Back rounded Vowels :

[u], [ʊ], [o] and [ɔ]

(ii) Nasalized Vowels

[ĩ], [ɪ̃] [ẽ], [ɛ̃], [ə̃], [ã], [ũ], [ʊ̃], [õ] and [ɔ̃]

1.3.2. Consonants

Stops :

[p] [ph] [b]
[t] [th] [d]
[ṭ] [ṭh] [ḍ]
[k] [kh] [g]

Affricates :

[c], [ch] and [j]

Nasals :

[m], [n] and [ṇ]

Laterals :

[l] and [ḷ]

Trill :

[r]

Flap :

[ṛ]

Fricatives :

[s], [š], [z], [f], [x], [g̣] and [h]

Frictionless continuants :

[y] and [v]

2. Description of Punjabi Speech Sounds

2.1. Non-Nasalized Vowels

2.1.1. [i]

While producing this vowel the vocal cords vibrate and produce voicing. The soft palate is raised to close the passage to the nasal cavity. The lips are spread and the front part of the tongue is raised to the maximum height used in the production of vowel sounds towards the roof of the mouth. It is known as *high front unrounded vowel.* It is relatively long in duration in Punjabi. It occurs in initial, medial and final positions :

Examples :

Initial		*Medial*	
id	‘a Muslim festival’	šəhid	‘martyr’
išer	‘God’	kəbila	‘tribe’
isa	‘Christ’	tir	‘arrow’
iman	‘faith’	kəmiz	‘shirt’
iran	‘Iran’	kimət	‘price’

Final	
kəhani	‘story’
sə́i	‘correct”
kaḷi	‘black (f)’
dɪvali	‘Diwali’
hathi	‘elephant’

2.1.2. [ɪ]

While producing this sound, vocal cords vibrate and the soft palate is raised to close the passage to nasal cavity. The lips remain spread. The front part of the tongue is raised towards the hard palate. The rise of the tongue in this case is slightly less than that in case of [i]. It is shorter in duration than [i]. This vowel is called *lower-high front unrounded vowel.* Some scholars have described it as less front that [i] or somewhat centralised. It occurs in initial and medial positions only.

Examples :

Initial		*Medial*	
ɪṭ	'brick'	sɪr	'head'
ɪkasi	'eighty one'	tɪn	'three'
ɪmarət	'building'	cɪr	'delay'
ɪlaj	treatment	phɪr	'then'
ɪk	'one'	kɪnna	'how much'
ɪkai	'unit'	chɪasi	'eighty six'

2.1.3. [e]

While producing this vowel, the lips are in a neutral position and the vocal cords vibrate. The front part of the tongue is raised towards the hard palate. The rise of the tongue is comparatively less than that of [ɪ]. The soft palate is raised to close the passage to nasal cavity. It is known as *mid front unrounded vowel*. It occurs in all positions :

Examples

Initial		*Medial*	
ekta	'unity'	sek	'heat'
ešia	'Asia'	tel	'oil'
ena	'this much'	mez	'table'
		ret	'sand'

Final

mũṇḍe	'boys'
neṛe	'near'
pile	'yellow' (plu)

2.1.4. (ɛ)

While producing this sound the lips remain spread in half open position. The vocal cords vibrate. The soft palate is raised to block the entry of air into the nasal passage. The tip and sides of the tongue remain in touch with lower teeth. The front part of the tongue in this case is raised to a height less than that of [e] i It is called *mid-low front unrounded vowel.* It occurs in a l positions :

Examples

Initial		*Medial*	
ɛb	'fault'	sɛr	'walk'
ɛn	'exact'	pɛr	'foot'
ɛs	'pleasure'	vɛr	'enmity'
ɛtvar	'sunday'	mɛḷa	'dirty'
ɛve	'casually'		

Final

lɛ	'take'
jɛ	'victory'
lɛ	'detach'
hɛ	'is'
pɛ	'fear'

2.1.5. [ɔ]

While producing this sound, the vocal cords vibrate and the soft palate is raised to close the passage to nasal cavity. The central part of the tongue is raised to an intermediate height required for the production of a vowel. The lips are slightly spread. It is called a *mid central unrounded short vowel.* It occurs in initial and medial position only.

Examples :

Initial		*Medial*	
əsan	'easy'	dər	'fear'
əram	'rest'	dəs	'ten'
əcar	'pickles'	kər	'do'
ənar	'pomegranate'	kəsrət	'exercise'
əsəl	'real'	pəl	'moment'

2.1.6. [a]

While producing this vowel, vocal cords vibrate and the soft palate is raised to close the passage to nasal cavity. The tongue is not raised at all and lies low and the lips are slightly spread. The articulation of this vowel is of longer duration than that of [ə]. It is called *low central unrounded vowel.* It occurs in all positions.

Examples :

Initial		*Medial*	
adət	'habit'	məkan	'house'
adər	'respect'	sərkar	'government'
arsi	'mirror'	par	'across'
akh	'say'	cal	'gait'
alu	'potato'	sak	'relative'

Final

sara	'whole'
moṭa	'fat'
mɛḷa	'dirty'
kaḷa	'black'
soṭa	'a stick'

2.1.7. [u]

While producing this sound, vocal cords vibrate and the soft palate is raised to close the passage to the nasal cavity. The back part of the tongue is raised to the maximum height possible for the articulation of vowels. Lips remain in a rounded position. The duration of the articulation of this vowel is relatively long. It is called a *high back rounded vowel*. It occurs in all positions :

Examples :

Initial

uṭh	'camel'
uṇ	'shortage'
uṇa	'not full'
uɗa	'brinjal colour'

Medial

buṭa	'plant'
pura	'complete'
dur	'away'
surma	'brave'
sur	'pig'

Final

caku	'knife'
jadu	'magic'
alu	'potato'
calu	'in process'
pəšu	'animal'

2.1.8. [ʊ]

While producing this sound, the vocal cords vibrate and the soft palate is raised to close the passage to the nasal cavity. The back part of the tongue is raised towards the soft palate. The rise of the tongue in this case is slightly lower than that described in the production of [u]. The duration of its articulation is also shorter than [u]. It is called *lower-high back rounded vowel.* Some scholars have described it as less back than [u] and somewhat centralised in articulation. It occurs in initial and medial positions only.

Examples :

Initial		*Medial*	
ʊdas	'sad'	cʊst	'smart'
ʊttər	'reply'	phʊl	'flower'
ʊjla	'bright'	bʊzdil	'coward'
ʊpər	'above'	ḍʊbna	'to be drowned'
ʊstad	'teacher'	rʊmal	'handkerchief'

2.1.9. [o]

While producing this sound, the vocal cords vibrate and the velum is raised to close the passage to the nasal cavity. The lips are rounded and the back part of the tongue is raised to an intermediate height required for the production of the vowels. The duration of articulation of this sound is long. It is called *mid back rounded vowel.* It occurs in all positions.

Examples :

Initial		*Medial*	
oda	'of that size'	ḍor	'thread'
os	'he (oblique)'	cor	'thief'
óde	'then'	mor	'peacock'
ona	'that much'	roṭi	'bread'
othe	'there'	joṛa	'a pair'

Final

do	'two'
maro	'beat'
dekho	'see'
soco	'think'

2.1.10. [ɔ]

While producing this vowel the vocal cords vibrate and the velum is raised to close the passage to the nasal cavity. Lips remain in a slightly rounded position and the back part of the tongue is raised towards soft palate. The rise of the tongue in this case is lower than that described in the articulation of [ʊ]. It is called *mid-low back rounded vowel*. It occurs in all positions

Examples :

Initial		*Medial*	
ɔkh	'difficulty'	dɔr	'race'
ɔzar	'instrument'	rɔḷa	'noise'
ɔst	'average'	hɔḷa	'light in weight'
ɔrət	'woman'	kɔṛa	'bitter'

Final

sɔ	'hundred'
lɔ	'set'
rɔ́	'stay'
lɔ́	'detach'
pɔ̀	'fear'

2.2. Nasalized Vowels

2.2.1. [ĩ]

While producing this sound, the speech organs remain in the same position as described in 2.1.1. except that the velum is not raised to close the passage to the nasal cavity so that the air passes through the nasal cavity partially and the vowel so produced is nasalized It occurs in medial and final positions only.

Examples

Medial		*Final*	
pĩda	'drinking'	rəĩ	'so stay'
jĩda	'live'	əsĩ	'we'
nĩd	'sleep'	nəĩ	'no'
tĩa	'a festival'		

2.2.2. [ɪ̃]

While producing this vowel the speech organs remain in the same position as described in 2.1.2 except that the soft palate is not raised to close the passage to the nasal cavity. The puff of air passes through the nasal cavity as well and the vowel so produced is nasalized. It occurs in initial and medial positions only.

Examples :

Initial		*Medial*	
ɪ̃c	'an inch'	pɪ̃jra	'cage'
ɪ̃glɪg̃ḍ	'England'	kɪ̃nna	'how much'
ɪ̃tɪzam	'arrangement'		
ɪ̃tɪzar	'wait'		

2.2.3. [ẽ]

While producing this sound, the speech organs remain in the same position as described in 2.1.3. except that the soft palate is not raised and the passage to the nasal cavity remains open. The sound is nasalized. It occurs in medial and final positions.

Examples

Medial		*Final*	
sẽja	'watering'	ivẽ	'like this'
sẽji	'a weed'	kivẽ	'how'
gẽd	'ball'	khavẽ	'eat (hortative)
sẽda	'rock salt'	payẽ	'put (hortative
		jaẽ	'go (hortative)'

2.2.4. [ɛ̃]

While producing this sound, the speech organs remain in the same position as described in 2.1.4. except that the soft palate is not raised to block the entry of air into the nasal passage. The sound produced is nasalized. It occurs in all positions :

Examples :

Initial		*Medial*	
ɛ̃ṭh	'a twist'	kɛ̃ci	'scissors'
ɛ̃ṭna	'to be twisted'	pɛ̃ti	'thirty five'
ɛ̃vi	'by the way'	sɛ̃kṛa	'hundred'
		kɛ̃ṭha	'a necklace'

Final	
mɛ̃	'I'
sɛ̃	'were'

2.2.5. [ə̃]

While producing this sound, the speech organs remain in the same position as described in 2.1.5. above except that the soft palate is not raised to close the passage to the nasal cavity so that the sound produced is nasalized. It occurs in initial and medial positions only.

Examples :

Initial		*Medial*	
ə̃ng	'part of body'	ṭhə̃ṇḍa	'cold'
ə̃nguṭha	'thumb'	bə̃nda	'person'
ə̃ndər	'in'	sə̃nt	'saint'
ə̃ngur	'grapes'	gə̃nj	'baldness'
ə̃nt	'end'	rə̃ŋg	'colour'

2.2.6. [ā̃]

While producing this sound, the speech organs remain in the same position as described in 2.1.6. except that the soft palat is not raised to block the entry of air in the nasal cavity and the sound produced is nasalized. It occurs in all positions.

Examples:

Initial		*Medial*	
ā̃vla	'name of a fruit'	bā̃s	'bamboo'
ā̃trık	'inner'	jā̃da	'going'
ā̃da	'egg'	cā̃di	'silver'
ā̃da	'coming'	šā̃t	'peaceful'

Final

ɪṭṭā̃	'bricks'
əkkhā̃	'eyes'
kɪtabā̃	'books'
mā̃	'mother'
heṭhā̃	'below'

2.2.7. [ū̃]

While producing this sound, the speech organs remain in the same position as described in 2.1.7, except that the passage to the nasal cavity is not blocked by raising the soft palate so that the sound produced is nasalized. It occurs in all positions.

Examples :

Initial		*Medial*	
ū̃gh	'laziness'	kū̃ḍa	'an earthen pan'
ū̃ve	'like that'	sū̃kṇa	'to whistle'
ū̃́da	'upside down'	gū̃jṇa	'to echo'
		gū̃d	'gun'

Final

mū̃́	'mouth'
nū̃	'to'
tū̃	'you'

2.2.8. [ʊ̃]

While producing this sound, the speech organs remain in the same position as described in 2.1.8. except that the passage to nasal cavity is not blocked by raising the soft palate so that the sound produced is nasalized. It occurs in initial and medial positions.

Examples :

Initial		*Medial*	
ʊ̃ngəl	'finger'	kʊ̃ṇḍa	'a bolt'
ʊ̃ngərna	'to germinate'	mʊ̃ṇḍa	'a boy'
ʊ̃nguṭhi	'ring'	kʊ̃ndən	'gold'

2.2.9. [õ]

While producing this sound, the speech organs remain in the same position as described in 2.1.9. except that the soft palate is not raised to block the entry of air puff in the nasal cavity so that the sound produced is nasalized. It occurs in medial and final positions only.

Examples :

Medial		*Final*	
gõd	'plan'	donõ	'both'
hõd	'existence'	sərõ	'mustard'
rõda	'weeping'	durõ	'from far off'
ḍõgi	'a small boat'	bárõ	'from outside'

2.2.10. [ɔ]

While producing this sound, the speech organs remain in the same position as described in 2.1.10 above except that the passage to the nasal cavity is not blocked by raising the soft palate so that the sound produced is nasalized. It occurs in all positions.

Examples:

Initial		*Medial*	
ɔ̃s	'ounce'	sɔ̃pna	'to hand over'
ɔ̃t	'having no progency'	cɔ̃kṇa	'to be startled'
ɔ̃sər	'young female buffalo'	sɔ̃ph	'a nise seed'
		sɔ̃ka	'name of a bird'

Final

s ɔ̃́	'an oath'
p ɔ̃̀	'land'

2.3. Diphthongs

Punjabi has a number of diphthongs. The first member of a diphthong is always a short vowel and the second one is a long vowel. Following are the examples of diphthongs in Punjabi :

ɪa	gɪa	'(he) went'
ɪo	pɪo	'father'
ɪɔ	lɪɔṇa	'to bring'
əi	gəi	'(she) went'
əe	gəe	'(they) went'
əu	gəu	'cow'
ʊa	gʊaca	'lost'

2.4. Tones

There are three tones in Punjabi-**high**, **mid** and **low**. It is very important to listen to the pronunciation of native speakers for getting an auditory impression of these tones and to imitate them for acquiring an accurate pronunciation. In the production of tones, there is neither friction nor stoppage of air in the mouth. They are pronounced always concurrently with a syllable. In the production of low-tone there is a considerable amount of constriction in the larynx along with some creakiness. Sometimes fall of the larynx is accompanied by the lowest possible pitch. The fall in pitch is followed by a rise not to the same level in all the cases.

In high-tone the pitch of the voice is raised and falls down in the same syllable in a monosyllabic word but in polysyllabic words the fall is realised on the tail syllable which follows the onset syllable.

In mid-tone words the pitch remains fairly level which may rise towards the end. The rise is not necessarily realised in all the cases.

2.4.1. High-tone

High-tone is higher than the other two and the syllable with this tone is also shorter than those with the other two tones. High tone is marked by [ˊ]. It occurs in initial, medial and final positions.

Examples :

Initial		*Medial*	
éda	'his/her'	bɔ́t	'much'
óda	'his/her'	gə́da	'donkey' (m)
ə́dda	'half'	mə́j	'buffalo'
ɪ́j	'thus'	nɛ́r	'canal'
ɛ́dər	'this side'	dʊ́d	'milk'

Final	
sɔ̃́	'an oath'
cá	'tea'
šá	'rich man'
kəpá	'cotton crop'
səlá	'advice'

2.4.2. Mid-tone

Mid-tone is considered to be intermediate in pitch between the high and low tones. The syllable is of an intermediate height in this case. Mid-tone is not marked in the phonetic transcription. The difference between the mid and high tone and between the mid and low-tone can be seen in the pronunciation of following minimal pairs :

a. *Mid Tone*		*High Tone*	
koṛa	'whip'	kóṛa	'lepper'
ca	'enthusiasm'	cá	'tea'
bar	'uncultivated land'	bár	'out'
la	'fix'	lá	'take off'
kɪl	'a nail'	kɪ́l	'strain'
sɔ̃	'sleep'	sɔ̃́	'an oath'

b. *Mid Tone*		*Low Tone*	
koṛa	'whip'	kòṛa	'horse'
ca	'enthusiasm'	cà	'peep'
kaḷ	'death'	kàḷ	'labour'
kəṛi	'a ring of a chain'	kə̀ṛi	'a small pitcher, watch'

2.4.3 Low-tone

Low tone has been described as the lowest of the three tones. The pitch tends to fall. The syllable under this tone is longer in comparison with the other two. Low tone is marked by [\]. It occurs mostly in medial and final positions.

Examples :

Medial		*Final*	
kə̀r	'house'	pò̃	land
ṭɪ̀ḍ	'stomach'	pɛ̀	'fear'
pài	'brother'	tì	'daughter'
pʊ̀a	'father's sister'	pà	'price'
pɛ̀n	'sister'	kà	'grass'
tʊ̀p	'Sunny'		
pùt	'past'		

Low tone is distinct from the high tone, as may be seen in the following examples of minimal pairs :

Low-tone		*High-tone*	
kòṛa	‘a horse’	Kóṛa	‘a leper’
kə̀l	‘send’	kə́l	‘yesterday’
ṭàṇi	‘a party’	ṭáṇi	‘a branch of a tree’
Kə̀ṛi	‘a small pitcher’	Kə́ṛi	‘curry’

2.5. Consonants

2·5·1 Stops

2·5·1·1. [p]

While producing this sound, the vocal cords do not vibrate. The soft palate is raised to close the passage to the nasal cavity. The lips are brought firmly together into contact, then the contact is released and the puff of air comes out suddenly with plosion. The sound produced is called *voiceless unaspirated bilabial stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
pərvar	‘family’	kəpá	‘cotton’
pətə̃ng	‘kite’	sʊpna	‘dream’
pətla	‘thin’	‘mezpoš̌’	‘table cloth’
pənɪr	‘cheese’	bɪpta	‘misery’
pəkkha	’fan.	sɪpái	‘soldier’

Final	
nap	‘measurement’
ap	‘one self’
bap	‘father’
mɪlap	‘meeting’
pap	‘sin’

2.5.1.2. [ph]

While producing this sound, the position of the speech organs remains the same as described in 2.5.1.1. except that an extra puff of air comes out while releasing the contact of lips and the sound produced is thus aspirated. It is known as *voiceless aspirated bilabial stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
phəsəl	'crop'	bephıkər	'care free'
phəl	'fruit'	liphapha	envelope'
phaṭək	'gate'	səphəlta	'success'
phʊl	'flower'	jəppha	'strong hold'
phaltu	'spare'		
phəṭṭa	'a plank.		

Final	
bexɔph	'fear less'
səraph	'goldsmith'
ɪnsaph	'justice'
leph	'mattress'

2.5.1.3. [b]

While producing this sound the vocal cords vibrate and the soft palate is raised to block the passage to the nasal cavity. The lips are brought together for a momentary firm contact ; when the contact is released, the air comes out suddenly with plosion. The sound produced is called *voiced unaspirated bilabial stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
buṭ	'shoe'	sabən	'soap'
bʊzdɪl	'coward'	ḍʊbṇa	'to be drowned'
bɔcca	'child'	pàbì	'brother's wife'
bəzar	'bazar'	kəbutər	'pigeon'
bədam	'almonds'	suba	'province'

Final	
purəb	'east'
rəb	'God'
kitab	'book'
jʊrab	'socks'
jəvab	'answer'

2.5.1.4. [t]

While producing this sound, the vocal cords do not vibrate. The soft palate is raised to close the passage to the nasal cavity. The tip of the tongue is raised to touch the back of the upper teeth. When the tongue is withrdrawn to release the contact, the air escapes with plosion. This sound is known as *voiceless unaspirated dental stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
tar	'wire'	tota	'parrot'
tir	'arrow'	khota	'an ass'
təri	'soup'	dəftər	'office'
taza	'fresh'	kɪtab	'book'
təkṛa	'strong'	sətvã	'seventh'

Final

kɪsmət	'fate'
kimət	'price'
kʊdrət	'nature'

2.5.1.5. [th]

While producing this sound the speech organs remain in the same position as described in 2.5.1.4. except that an extra puff of breath comes out when the sound is produced. This sound is called *voiceless aspirated dental stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
thali	'plate'	mattha	'forehead'
thɛla	'bag'	hathi	'elephant'
thotha	'empty'	sathi	'companion'
thəkna	'to be tired'	sʊthra	'clean'
thok	'wholesale'	kətha	'story'

Final

sətth	'group of people'
hətth	'hand'
rəth	'chariot'
loth	'corpus'
nətth	'ornament for nose'

2.5.1.6. [d]

While producing this sound, the vocal cords vibrate. The soft palate is raised to close the passage to the nasal cavity. The tip of the tongue touches the back of the upper teeth. When the tongue is withdrawn to release the contact, air comes out with sudden plosion. The sound produced is called *voiced unaspirated dental stop*. It coccurs in all positions.

Examples :

Initial		*Medial*	
dɪl	'heart'	bədla	'revenge'
dɪn	'day'	sərdar	'chief'
dəs	'ten'	təkdir	'fortune'
dəler	'brave'	cadər	'bed sheet'
des	'country'	pɛdəl	'on foot'

Final	
gṹd	'glue, gum'
pəsə̃́nd	'liking'
tadad	'number'
yad	'remembrance'
kəd	'height'

2.5.1.7. [ṭ]

While producing this sound, the vocal cords do not vibrate. The soft palate is raised to close the passage to the nasal cavity. The tip of the tongue is curled back and touches the hard palate. When the tongue is withdrawn to release the contact the air comes out abruptly. The sound produced is called *voiceless unaspirated retroflex stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
ṭəmaṭər	'tomato.	laṭ	'flame'
ṭaṭ	'jute mat'	laṭu	'lamp'
ṭəbbər	'family	naṭək	'drama'
ṭoKrì	'basket'	moṭa	'fat'
ṭʊKṛa	'a piece'	roṭî	'bread'

Final

peṭ	‘belly’
ṭaṭ	‘jute mat’
sʊṭ	‘throw’
kʊṭ	‘grind’
noṭ	‘note’
koṭ	‘coat’

2.5.1.8. [ṭh]

While producing this sound, the speech organs remain in the same position as described in .2.5.1.7. except that an extra puff of breath comes out when the tongue is released. The sound produced in called *voiceless aspirated retroflex stop.* It occurs in all positions.

Examples :

Initial

ṭhik	‘allright’	laṭhi	‘stick’
ṭhokər	‘a blow’	koṭha	‘roof’
ṭheka	‘contract’	bɛṭhna	‘to sit’
ṭhəg	‘a robber’	heṭha	‘below’
		mɪṭṭha	‘sweet’

Final

cùṭh	‘lie’
gəṭh	‘knot’
əṭh	‘eight’
səṭh	‘‘sixty’
paṭh	‘lesson’

2.5.1.9. [ḍ]

While producing this sound, the vocal cords vibrate. The soft palate is raised to close the passage to the nasal cavity. The tip of the tongue is curled back and touches the hard palate. When the tongue is suddenly withdrawn to release the contact, the air slips out abruptly. The sound produced is knwon as *voiced unaspirated retroflex stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
ḍakṭər	'doctor'	gəḍḍa	'a cart'
ḍaku	'dacoit'	ãḍa	'egg'
ḍəbba	'box'	ləḍḍu	'a sweet meat'
ḍər	'fear'	pãḍa	'utensil'
ḍak	'mail'		

Final	
pɪ̃ṇḍ	'village'
və̃ṇḍ	'division'
kãṇḍ	'a part'
pèḍ	'sheep'
ṭɪḍ	'belly'
khəḍ	'a pit'

2.5.1.10 [k]

While producing this sound, the vocal cords do not vibrate, and the passage to nasal cavity is closed. The back of the tongue is raised to touch the soft palate. When this contact is released the air slips out abruptly with plosion. The sound produced is called *voiceless unaspirated velar stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
kəsrət	'exercise'	dʊkan	'shop'
kela	'banana'	məkan	'house'
kəbutər	'pigeon'	pəkɔṇa	'to cook'
kagɜz	'paper'	rʊkṇa	'to stop'

Final

šək	'doubt'
ṭhik	'correct'
nək	'nose'
ık	'one'

2.5.1.11 [kh]

While producing this sound the speech organs remain in the same position as described in 2.5.1.10 except that when the tongue is released an extra puff of air comes out. Thus the sound produced is aspirated. It is called *voiceless aspirated velar stop.* It occurs in all positions.

Examples :

Initial		*Medial*	
khir	'a sweet dish'	səkhət	'hard'
khəjur	'date'	məkhhi	'fly'
khə̃ṇḍ	'sugar'	dʊkhi	'sorrowful'
khə̃́mb	'feather'	pəkkha	'fan'
khet	'field'	ləkhpəti	'millionaire'
khəra	'pure'	sʊkhi	'happy'

Final

dekh	'see'
akh	'say'
lɔkh	'lac'
sukh	'happiness'
rʊkh	'tree'
dukh	'sorrow'

2.5.1.12 [g]

While producing this sound the vocal cords vibrate, the passage to the nasal cavity is blocked by raising the soft palate.

The back part of the tongue is raised to touch the soft palate. When the contact is released air comes out abruptly. The sound produced is called *voiced unaspirated velar stop*. It occurs in all positions.

Examples :

Initial		*Medial*	
git	'song'	ʊ̃gli	'finger'
gəli	'street'	ə̃gur	'grapes'
gəz	'yard'	əgla	'next'
gajər	'carrot'	jə̃gəl	'forest'
gʊlab	'rose'	khərgoš	'rabbit'

Final	
rag	'tune'
rə̃ng	'colour'
bag	'garden'
dag	'spot'
nag	'snake'

2.5.2. Affricates

2.5.2.1 [c]

While producing this sound, the vocal cords do not vibrate and the nasal passage is closed by raising the soft palate. The front of the tongue is raised high to touch the points between the teeth ridge and the hard palate and then the tongue is released gradually, so that the air passes with fiction. The sound produced is called *voiceless unaspirated palato-alveolar affricate*.

Examples :

Initial		*Medial*	
car	‘four’	kəcnar	‘name of a flower’
cabi	‘key’	vɪcara	‘helpless’
cəprasi	‘peon’	vɪcale	‘in the middle’
cãdi	‘silver’	bəcca	‘child’
caku	‘knife’	əcar	‘pickle’

Final	
səc	‘true’
soc	‘thought’
mɪrc	‘pepper’
vɪc	‘in’
nac	‘dance’

2.5.2.2. [ch]

While producing this sound, the speech organs remain in the same position as described in 2.5.2.1. except that when the tongue is released an extra puff of breath passes and the sound produced is aspirated. This sound is known as *voiceless aspirated palato-alveolar affricate*. It occurs in all positions.

Examples :

Initial		*Medial*	
chət	‘roof’	ɪccha	‘desire’
chətri	‘umbrella’	kəcchu	‘tortoise’
chətti	‘thirty six’	məcchi	‘fish’
chã	‘shadow’	kəccha	‘underwear’
chaṭṇa	‘to sort out’		

Final

rɪch	‘bear’
puch	‘investigation’
məgərməch	‘a crocodile’
bərɪch	‘tree’

2.5.2.3. [j]

While producing this sound, the vocal cords vibrate and the passage to the nasal cavity is closed by raising the soft palate. The front of the tongue makes a contact against points between the teeth ridge and the hard palate. When the contact is released, the air stream passes with friction, the sound produced is called *voiced unaspirated palato-alveolar affricate.* It occurs in all positions.

Examples :

Initial		*Medial*	
jʊda	‘separate’	khũja	‘corner’
jəgət	‘world’	əjib	‘surprising’
jəmat	‘class’	məjbur	‘compelled’
jəvab	‘answer’	raja	‘king’
vɪjəy	‘victory’	puja	‘worship’

Final

gũj	‘noise’
surəj	‘sun’
ənaj	‘grain’
səmaj	‘society’
pə̀j	‘run’

2.5.3. Nasals

2.5.3.1. [m]

While producing this sound the vocal cords vibrate, lips are firmly pressed against each other so that the air does not come out from the mouth. The soft palate is lowered so that the air comes out through the nasal cavity. The sound produced is called *voiced bilabial nasal*. It occurs in all positions.

Examples :

Initial		*Medial*	
məkan	'house'	kəmiz	'shirt'
mera	'mine'	zəmin	'earth'
mə̃ndər	'temple'	əsman	'sky'
mʊ̃ṇḍa	'boy'	kəmra	'room'
mã	'mother'	kəmər	'waist'

Final	
zʊkam	'cold'
gərəm	'hot'
nərəm	'soft'
kəm	'work'
əram	'rest'

2.5.3.2. [n]

While producing this sound the vocal cords vibrate. The tip of the tongue touches the back part of the upper teeth. The soft palate is lowered so that the air escapes through the nasal passage. The sound produced is called *voiced dental nasal*. It occurs in all positions.

Examples :

Initial		*Medial*	
nəlka	'tap'	sona	'gold'
nətija	'result'	danɪ	'wise'
nə̃ga	'naked'	ənar	'pome granate'
nəgara	'a big drum'	ɪnsan	'human being'
nəgər	'city'	rajtàni	'capital'

Final	
dɪn	'day'
nʊksan	'loss'
din	'religion'
durbin	'telescope'
kən	'ear'

2.5.3.3. [ṇ]

While producing this sound the vocal cords vibrate, and the passage to the nasal cavity is not closed so that the air passes through the nasal cavity. The tip of the tongue curls back and touches the hard palate and then the tongue is suddenly relaxed so that the air slips out abruptly. The sound produced is called *voiced retroflex nasal.* It occurs in medial and final positions.

Examples :

Midial		*Final*	
paṇi	'water'	luṇ	'salt'
sɪaṇa	'wise'	səṇ	'jute'
lɛṇa	'to take'	kɔṇ	'who'
deṇa	'to give'	hʊṇ	'now'
kaṇa	'one eyed'	maṇ	'respect'

2.5.4. Laterals

2.5.4.1. [l]

While producing this sound, the vocal cords vibrate. The soft palate is raised to close the passage to the nasal cavity. The blade of the tongue touches the back of the upper teeth leaving an opening on either side of the mouth. The sound is known as *dental lateral*. It occurs in all positions.

Examples :

Initial		*Medial*	
lab	'gain'	ḍela	'eyeball'
lapeṭəna	'to wrap'	ohılna	'to peal'
ləškər	'army'	sola	'sixteen'
lal	'red'	bılli	'cat'
luṇ	'salt'	bʊlɔna	'to call'

Final	
dıl	'heart'
rʊmal	'handkerchief'
jəl	'water'
mısal	'example'
səval	'question'

2.5.4.2. [ḷ]

While producing the sound the vocal cords vibrate and the soft palate is raised to close the passage to nasal cavity. The tip of the tongue curls back and touches the hard palate. The air current passses by the sides of tongue. The sound produced is known as *voiced retroflex lateral*. It occurs in medial and final positions.

Examples :

Medial		*Final*	
paḷi	'brought up' (f)	paḷ	'line'
kaḷi	'black'	thaḷ	'dish'
khaḷi	'stream'	taḷ	'tank'
paḷã	'lines'	chaḷ	'jump'
goḷi	'bullet'	daḷ	'pulses'

2.5.5. Trill

2.5.5.1. [r]

While producing this sound the vocal cords vibrate and the passage to the nasal cavity is closed by raising the soft palate. The tip of the tongue goes near the alveolar ridge and then taps intermitantly to produce trilling sound. The sound produced is called *voiced alveolar trill.* It occurs in all positions :

Examples :

Initial		*Medial*	
rat	'night'	pəri	'fairy'
ret	'sand'	meri	'mine'
raṇi	'queen'	šərbət	'syrup'
rešəm	'silk'	tera	'your's'
rɔšni	'light'	dərwaza	'door'

Final	
khir	'a sweet dish'
əmir	'rich'
təkdir	'fate'
nir	'water'
car	'four'
əcar	'pickles'

2.5.6. Flap

2.5.6.1. [ṛ]

While producing this sound the vocal cords vibrate and the soft palate is raised to close the passage to the nasal cavity. The tip of the tongue curls back and approaches the hard palate, but does not make a contact. The curled back part of the tongue is then thrown towards the bottom of the oral cavity with force and results in a flap. The sound thus produced is called *voiced retroflex flap.* It occurs in medial and final positions :

Examples :

Medial		*Final*	
paṛi	‘tore away’	tùṛ	‘dust’
maṛa	‘bad’	neṛ	‘nearness’
rəṛək	‘pain’	məroṛ	‘turn’
ləṛai	‘fight’	pətcə̀ṛ	‘autumn’
ənaṛi	‘unskillful’	càṛ	‘bushes’

2.5.7. Fricatives

2.5.7.1. [s]

While producing this sound the vocal cords do not vibrate. The passage to the nasal cavity is closed. The blade of the tongue approaches the teeth ridge leaving a narrow passage through which the air sequeezes out with friction. The sound produced is called *voiceless alveolar fricative*. It occurs in all positions.

Examples :

Initial		*Medial*	
sara	‘whole’	rəsm	‘custom’
sərur	‘cheerfulness’	jəsus	‘spy’
sɛ̧na	‘army’	təsvir	‘picture’
sʊkka	‘dry’	əsi	‘we’
sal	‘year’	məst	‘intoxicated’

Final	
dəs	‘ten’
das	‘servant’
pɪas	‘thirst’
as	‘hope’
kəs	‘tie’

2.5.7.2. [s]

While producing this sound, the vocal cords do not vibrate. The soft palate is raised to close the passage to the nasal cavity. The tip of the tongue approches the teeth ridge and the front of the tongue is raised towards the back part of the hard palate, leaving a narrow passage. The air sequeezes through the narrow passage with friction. The sound produced is called *voiceless palato-alveolar fricative*. It occurs in all positions.

Examples :

Initial		*Medial*	
šal	'shawl'	nɪšan	'sign'
šan	'glory'	məšur	'famous'
šam	'evening'	ləškər	'army'
šɪkar	'hunting'	aša	hope
šiša	'mirror'	rešəm	'silk'

Final	
bədmaš	'rogue'
barɪš	'rain'
pʊrʊš	'man'
sɪpharɪš	'recommendation'
laš	'corpse'

2.5.7.3. [z]

While producing this sound, the vocal cords vibrate and the soft palate is raised to block the passage to nasal cavity. The blade of the tongue approaches the teeth ridge but leaves a narrow passage through which the air escapes out with friction. The sound produced is called *voiced alveolar fricative*. This sound is found in loan words. It occurs in all positions.

Examples :

Initial		*Medial*	
zəra	'little'	nəzər	'glance'
zəmanət	'bail'	kəmzor	'weak'
zərd	'yellow'	mazdur	'labourer'
zərur	'definitely'	ə̃ndaza	'estimate'

Final	
tez	'fast'
raz	'secret'
ciz	'thing'
məriz	'patient'

2.5.7.4. [f]

While producing this soiund, the vocal cords do not vibrate and the nasal passage is closed by raising the soft palate. The lower lip approaches the upper teeth and the air is allowed only to force its way with friction. The sound produced is called *voiceless labio-dental fricative*. This sound occurs only in loan words. It occurs in all positions.

Example :

Initial		*Medial*	
fəkir	'a saint'	rəftar	'speed'
fərək	'difference'	səfai	'cleanliness'
faɪda	'profit'	dəftər	'office'
fɛ̨sla	'decision'	səfər	'travel'

Final

saf	'clean'
lef	'mat tress'
bərf	'snow'

2.5.7.5. [x]

While producing this sound, the vocal cords do not vibrate and the passage to nasal cavity is blocked. The back part of the tongue is raised towards the soft palate. The air stream is allowed to escape with friction. The sound produced is called *voiceless velar fricative*. The sound occurs only in loan words, and is found mostly in the speech of educated speakers of the language and that too not always. It occurs in all positions.

Examples:

Initial		*Medial*	
xərab	'bad'	səxt	'hard'
xata	'ledger'	karxana	'factory'
xɪlaf	'against'	əxbar	'newspaper'
xUš	'happy'	təxta	'plank of wood'
xəbər	'news'	zəxəm	'wound'

Final

šax	'branch'
rUx	'direction'
rəsux	'approach'
sUrUx	'red'

2.5.7.6. [g̣]

While producing this sound the speech organs remain in the same position as described in 2.5.7.5. except that the vocal cords vibrate and the sound produced is voiced. This is called *voiced* *velar fricative.* This sound occurs in the loan words from Persian and Arabic and is at times found in the speech of educated speakers of the language. It occurs in all positions.

Examples:

Initial		Medial	
g̣ərib	'poor'	əg̣va	'seduction'
g̣əm	'grief'	bəg̣əl	'armpit'
g̣əzəl	'a matory poem'	bəg̣avət	'revolt'
g̣ɛrhazɪr	'absent'		

Final	
dɪmag̣	'brain'
teg̣	'sword'
dag̣	'spot'
bag̣	'garden'

2.5.7.7. [h]

While producing this sound, the vocal cords vibrate and the soft palate is raised to close the passage to the nasal cavity. The lips remain open and the mouth is free from any obstruction, so that the air current coming from the lungs is allowed to go out freely. The air current passes with a friction in the glottal region. The sound produced is called *voiced glottal fricative.* It occurs only in initial position.

Examples:

Initial	
həfta	'week'
həspətal	'hospital'
həra	'green'
həva	'wind'
hətth	'hand'

2.5.8. Frictionless Continuants

2.5.8.1. [y]

While producing this sound the front of the tongue is raised slightly higher than that for [i] in the direction of the back of the hard palate. The lips are kept in a wide spread position. The vocal cords vibrate but the voicing of the sound is considerably less. This is called *unrounded palatal frictionless continuant.* It occurs in initial and medial positions only.

Examples :

Initial		*Medial*	
yad	'memory'	kamyab	'successful'
yətim	'orphan'	vayu	'wind'
yəkin	'certainty'	fəryad	'cry for help'
yurop	'Europe'	riyasət	'province'
yunani	'Greek'		

2.5.8.2. [v]

While producing this sound the vocal cords vibrate, the soft palate is raised to close the passage to the nasal cavity. The lips come close so as not to cause any friction. The constriction is that of open approximation only. The sound produced is called *voiced bilabial frictionless continuant.* It occurs in initial and medial positions only.

Examples :

Initial		*Medial*	
vəkt	'time	dəvat	'inkpot'
vəzən	'weight'	jəvan	'young'
vəpari	'businessman'	jivən	'life'
vəzir	'minister'	kəvita	'poem'
vəkil	'lawyer'	səjavəṭ	'decoration'

3 Phonetic Drills

3.1. Vowal Contrasts

	[ɪ]		[i]
dɪn	‘day’	din	‘religion’
kɪtta	‘profession’	kita	‘done’
pɪta	‘father’	pita	‘drank’
sɪṭ	‘throw’	siṭ	‘seat’
cɪr	‘late’	cir	‘cut’

	[ə]		[a]
dəs	‘ten’	das	‘servant’
dəl	‘a large army’	dal	‘pulses
tən	‘body’	tan	‘tune’
cəl	‘walk’	cal	‘gait’
pəl	‘moment	pal	‘bring up’
sək	‘skin’	sak	‘relative’

	[ᴜ]		[u]
sᴜr	‘tune’	sur	‘pig’
pᴜjna	‘to reach’	pujna	‘to worship’
gᴜṛ	‘molasses’	gúṛ	‘deep’
sᴜr	‘ash’	sua	‘a big needle‘
sᴜṭ	‘throw’	suṭ	‘suit’

[ɪ]		[e]	
lɪkh	‘write’	lekh	‘fortune’
kɪs	‘who (obli)’	kes	‘hair’
tɪṛ	‘a type of grass’	teṛ	‘crack’
sïr	‘head’	ser	‘seer’
mɪl	‘meet’	mel	‘connection’
ḍɪg	‘fall’	ḍeg	‘to drop something’
phɪr	‘then’	pher	‘move’

[ɪ]		[ɛ]	
sɪr	‘head’	sɛr	‘walk’
mɪl	‘a factory’	mɛḷ	‘dirt’
pɪr	‘area’	pɛr	‘foot prints’
sɪl	‘moisture’	sɛl	‘move about’

[i]		[e]	
ríl	‘real of thread’	rel	‘train’
tili	‘ornament for nose’	teli	‘oil seller’
rit	‘custom’	ret	‘sand’
mil	‘a mile’	mel	‘connection’
tira	‘shoulder, measurement,	tera	‘yours’

[i]		[ə]	
bin	‘a musical instrument	bən	‘forest’
cir	‘cut’	cər	‘graze’
piṛ	‘pain’	pə́ṛ	‘read’
tir	‘arrow’	tər	‘swim’

[i]		[a]	
pìṛa	‘narrow’	pàṛa	‘rate’
pir	‘saint’	par	‘across’
pila	‘yellow’	pala	‘cold’
ví	‘twenty’	vá	‘plough’
tir	‘arrow’	tar	‘wire’
saṛi	‘saree’	saṛa	‘jealousy’
ní	‘foundation’	ná	‘no’
si	‘was’	sá	‘breath’
cir	‘cut’	car	‘four’
[e]		[ɛ]	
ser	‘seer’	sɛr	walk
peṛi	‘closed’	pɛri	‘bad’
vel	‘acreeper’	vɛl	‘a bad habit’
le	‘set’	lɛ	‘take’
le	‘an animal’	lɛ	‘detatch’
meḷ	‘connection’	mɛḷ	‘dirt’
[e]		[ə]	
sek	‘heat’	sək	‘bark of a tree’
heṭh	‘below’	həṭh	‘adamant’
jel	‘jail’	jəl	‘water’
ret	‘sand’	rət	‘blood’
vekh	‘see’	vəkh	separate’
ker	‘to drop something	kər	‘do’
der	late	dər	‘door’
sej	‘bed’	səj	‘preparation’

[e]		[a]	
ser	‘seer’	sar	‘summary’
des	‘country’	das	‘slave’
jel	‘jail	jal	‘net’
ret	‘sand’	rat	‘night’
meḷa	‘fair’	maḷa	‘garland’
teṛ	‘crack’	taṛ	‘the palm tree’

[ɛ]		[ə]	
pɛr	‘foot’	pər	‘but’
sɛr	‘strolling’	sər	‘a kind of reed’
vɛr	‘enemity’	vər	‘a bridegroom’
bɛl	‘ox’	bəl	‘strength’
tɛr	‘swim’	tər	‘float’

[ɛ]		[a]	
tɛr	‘swim’	tar	‘wire’
pɛr	‘foot’	par	‘across’
pɛ	‘lay’	pa	‘put’
pɛṛa	‘bad’	pàṛa	‘hiring charges’
pɛ̀	‘fear’	pà	‘price’
bɛl	‘ox’	bal	‘young child’
rɛ́	‘stay’	rá	‘path’
sɛr	‘walk’	sar	‘condition’
vɛr	‘enemity’	var	‘attack’

[ʊ]		[o]	
kʊṛi	'girl'	koṛi	'score'
tʊr	'walk'	tor	to make walk (v),
bʊra	'bad'	bora	'sack'
kʊṭ	'beat'	koṭ	'coat'
kʊ̀ḷ	'to wrestle (v)'	kòḷ	'wrestling'

[ʊ]		[ɔ]	
kʊṛi	'girl'	kɔṛi	'bitter'
kʊl	'ancesstry'	kɔl	'promise'
pʊṛi	'a small paper package'	pɔṛi	'staircase'
pʊṛ	'a stone of a mill'	pɔṛ	'a hoof'

[ʊ]		[ə]	
sʊr	'tune'	sər	'a kind of reed'
tʊr	'to walk'	tər	'float'
kʊl	'generation' ancesstry'	kəl	'yesterday'

[ʊ]		[a]	
bʊl	'lip'	bal	'child'
mʊl	'price'	mal	'property'
sʊr	'tune'	sar	'summary'
cʊra	'steal (v)'	cara	'fodder'
pʊl	'bridge'	pal	'to bring up'

[u]		[o]	
khu	‘well’	kho	‘to snatch’ a sense of emptiness in the stomach’
puri	‘entire (f)	pori	‘a piece of sugar cane’
buṭ	‘a pair of shoes’	boṭ	‘a young one of the sparrow’
hur	‘nymph’	hor	‘more’
kuḷa	‘soft, tender’	koḷa	‘coal’
[u]		[ɔ]	
ũṭh	‘camel’	ɔṭ	‘shell’
kuṛa	‘dust’	kɔṛa	‘bitter’
mul	‘source’	mɔḷ	‘budding’
cuḷ	‘tenon’	cɔḷ	‘rice’
cuṭhi	‘the pivot of a door hinge’	cɔthi	‘fourth’ (f)’
cuk	‘blunder’	cɔk	‘an open square in a locality’
[u]		[ə]	
dur	‘far away’	dər	‘door’
hur	‘nymph’	hər	‘every, each’
tùṛ	‘dust’	tə̀ṛ	‘human body (dead)’
sur	‘pig’	sər	‘a kind of reed’
sut	‘thread, yarn’	sət	‘seven’

[u]		[a]	
pura	'complete'	para	'mercury'
sura	'brave man'	sara	'whole'
pur	'fill in (the kit)'	par	'across'
puṛa	'a sweet dish'	páṛa	'ạ student'
kuḷa	'soft'	kaḷa	'black'
vádu	'spare'	váda	'increase'
hur	'nymph'	har	'garland'

[ɪ]		[ʊ]	
sɪr	'head'	sʊr	'tune'
pɪta	'father'	pʊt	'son'
gɪn	'to count'	gʊṇ	'virtue, quality'
mɪl	'to see (v) factory	mʊl	'price'
tɪl	'mole on the skin'	tʊl	'equal, like'

[e]		[o]	
tel	'oil'	tol	'weight'
teṛ	'crack'	toṛ	'break'
séd	'direction'	sód	'correction'
éḍa	'of this size'	óda	'of that size'
šer	'lion'	šor	'noise'
khel	'play'	'khol	'a hollow'
khé	'ashes, ordure'	khó	'a sense of emptiness in the stomach'

[ɪ]		[ɪ̃]	
tɪd	'a hopper'	tɪ̃d	'an earthen **pot**'
ḍɪga	'fell'	ḍɪ̃ga	'crooked'
jɪd	'obsatinacy'	jɪ̃d	'life'
sɪ́di	'direct'	sɪ̃di	'belonging to Sindh State'

[i]		[ĩ]	
si	'was'	sĩ	'sew'
khəṛi	'upright'	khəṛĩ	'you may take away'
pə́ṛi	'read'	pəṛĩ	'you any read'
rái	'passenger'	ráĩ	'through'
jai	'feminine born (past participle)	jaĩ	'you may go'
sai	'earnest money'	saĩ	'lord, husband'
gai	'sung' (f)	gaĩ	'you may sing'

[e]		[ẽ]	
akhe	'he may say'	akhẽ	'you may say'
jae	'he may go'	jaẽ	'you may go'
khae	'he may eat'	khaẽ	'you may eat'

[ɛ]		[ɛ̃]	
hɛ	'is'	hɛ̃	'expressing fear'
lɛ	'take(imp)	lɛ̃	'take' (hortative)
pɛda	'created'	pɛ̃da	'lie down'

[ə]		[ə̃]	
cəṭ	'lick'	cə̃ṭ	'mischievous'
sət	'seven'	sə̃t	'saint'
pəj	'excuse'	pə̃j	'five'

gəḍ	'drive (a nail etc.)'	gə̃ḍ	'a flat shallow vessel'
əg	'fire'	ə̃g	'limp'
bətti	'thirty two'	bə̃ti	'a name'
səd	'to call'	sə̃d	'instrument, tool'
cə̀g	'foam'	cə̃̀g	'woods, a large cluster of trees'
[a]		[ã]	
bag	'garden'	bãg	'the crowing of a cock'
la	'attach'	lã	'string'
ga	'sing'	gã	'cow'
sag	'greens'	sãg	'imtation, acting'
badi	'flatulence'	bãdi	'a maid servant'
[u]		[ũ]	
lu	hot wind'	lũ	'soft hair'
su	bringing forth'	sũ	'snuffing, the hissing of a snake'
hu	oh	hũ	'yes'
[ʊ]		[ʊ̃]	
kʊ́j	'some'	kʊ̃j	'shell'
gʊḍḍa	'kite'	gʊ̃dda	'a hooligan'
kʊji	'small earthen pot'	kʊ̃ji	'key'
kʊti	'bitch'	kʊ̃ti	'a name (f)

[o]		[õ]	
co	'half burnt wood'	cõ	'from'
doda	'name of a town'	dõda	'having two teeth'

[ɔ]		[ɔ̃]	
sɔ	'hundred'	sɔ̃	'sleep'
sɔda	'bargain'	sɔ̃da	'present participle of sɔ
pɔ̀	'fear, danger'	pɔ̃̀	'giddiness'
pɔda	'plant'	pɔ̃da	'present participle of pa (to pour)'

3.2. Consonant Contrasts

3.2.1. Voiceless Vs Voiced

[p]		[b]	
nəppe	'pressed'	nəbbe	'ninety'
pəl	'moment'	bəl	'strength'
pap	'sin'	bap	'father'
pʊṇ	'filter'	bʊṇ	'knit'
pɪṭh	'back'	bɪṭh	'birds dropping'
pɪlla	'semi-burnt pup'	bɪlla	'cat' male
pʊrəš	'man'	bʊrəš	'bursh'
paḷ	'line'	baḷ	'to lit fire'

[p]		[b]	
pata	'torn'	bata	'flat pan'
pava	'cotleg'	bava	'body'.
pɛ	'lay'	bɛ	'sit'
pura	'complete'	bura	'saw-dust'
pətti	'leaf'	bətti	'the wick of the lamp'

paləna	'bring up'	baləna	'to burn'
poli	'hollow, delicate'	boli	'dialect'
[t]		[d]	
tan	'tune'	dan	'charity'
taḷ	'tank'	daḷ	'pulses'
tə̃d	'thread'	də̃d	'teeth'
tai	'father's elder brother's wife	dai	'mide wife'
tána	'taunt'	dana	'wise'
təva	'iron disk'	dəva	'medicine'
[ṭ]		[ḍ]	
ṭoḷ	'to find'	ḍol	'a drum'
ṭor	'walk' gait'	ḍor	'thread for flying kite'
həṭṭi	'shop'	həḍḍi	'bone'
goṭa	'golden lace'	goḍa	'knee'
[k]		[g]	
koḷ	'near'	goḷ	'round'
roki	'stopped'	rogi	'sick'
sok	'dryness'	sog	'mourning'
kaṇa	'one eyed'	gaṇa	'song'

kuṛa	‘trash’	gúṛa	‘deep’
koda	‘bent’	goda	‘knee’
kora	‘unused’	gora	‘fair complexion’
kəmḷa	‘mad’	gəmla	‘flower vase’
kə̃́ḍa	‘shore edge’	gə̃́ḍa	‘onion’
kədər	‘value, respect’	gədər	‘mutiny’
kərəm	‘fortune’	gərəm	‘hot’
kã́	‘crow’	gã́	‘cow’

[c]		[j]	
cal	‘gait’	jal	‘net’
kəc	‘glass’	kəj	‘cover’
səcca	‘true’	səjja	‘right’
soc	‘thought’	soj	‘swelling’
cá	‘tea’	já	‘go’
pəc	‘digest’	jəc	‘appeal’

[s]		[z]	
ras	‘all right’	raz	‘secret’
sarur	delight’	zərur	‘sure’

3.2.2. Unaspirated V*s* Aspirated

[p]		[ph]	
pəl	‘moment’	phəl	‘fruit’
lep	‘plaster’	leph	‘quilt’
pal	‘line, series’	phaḷ	‘small wedge’
pʊl	‘bridge’	phʊl	‘flower’
pər	‘but’	phər	‘shoulder-blade’
səp	‘serpent’	səph	‘mat’
paṭək	‘division’	phaṭək	‘gate’
[t]		[th]	
tan	‘a tune’	than	‘wrapped bundle of cloth’
rət	‘blood’	rəth	‘chariot’
taḷ	‘tank’	thaḷ	‘metallic dish’
tota	‘parrot’	thotha	‘shallow’
sət	‘seven’	səth	‘gathering’
[ṭ]		[ṭh]	
məṭ	‘pot’	məṭh	‘assembly’
mɪṭṭi	‘soil’	mɪṭṭhi	‘sweet’
ṭika	‘injection’	ṭhika	‘pebble’
ṭʊk	‘bread’	ṭhʊk	‘honour, union’
paṭ	‘division’	paṭh	‘lesson’
kaṭ	‘cut’	kaṭh	‘wood, timber’

[k]		[kh]	
sᴜkka	'dry'	sᴜkkha	'a drug'
kəl	'tomorrow'	khəl	'skin'
sᴜk	'dryness'	sᴜkh	'happiness'
kaḷi	'black'	khaḷi	'stream'
kaṇa	'one eyed'	khaṇa	'food'
kət	'spin'	khət	'letter'
kə́ba	'crooked'	khəba	'left'

[c]		[ch]	
vlc	'in'	vlch	'spread'
cə̃nd	'moon'	chə̃nd	'measure of songf'
məcci	'flared'	məcchi	'fish'
caḷ	'gait'	chal	'jump'

3.2.3 Others

[t]		[ṭ]	
moti	'pearl'	moṭi	'fat'
jət	'thick-hair'	jəṭ	'a caste'
pᴜt	'son'	pᴜṭ	'pull out'
lət	'ləg'	ləṭ	'lock of hair'
khota	'donkey'	khota	'faulty, impure'

[th]		[ṭh]	
həth	'hand'	həṭh	'persistence'
səth	'common place for sitting in a village'	səṭh	'sixty'
cɪtthi	'chewed'	cɪṭṭhi	'letter'
nəth	'nose ring'	nəṭh	'flee (imperative)'

[d]		[ḍ]	
dər	‘door’	ḍər	‘fear’
dəs	‘ten’	ḍəs	‘bite of a reptile, sting’
rə̃nda	‘plane’	rə̃ṇḍa	‘widower’
dá	‘burning’	ḍá	‘spreading’
həd	‘boundry’	həḍ	‘bone’
chə̃nd	‘measure in music’	chə̃ṇḍ	‘shake the dust’
də̃nd	‘tooth’	də̃nḍ	‘punishment’
mə̃nda	‘bad, evil’	mə̃ṇḍa	‘a very thin cake’

[p]		[t]	
pətta	‘leaf’	tətta	‘hot’
pər	‘but’	tər	‘swim’
piḷa	‘yellow’	tiḷa	‘straw’
paḷa	‘cold’	taḷa	‘lock’
bap	‘father’	bat	‘story’
kʊppa	‘oil can’	kʊtta	‘dog’
səp	‘snake’	sət	‘seven’

[p]		[k]	
napp	‘to press’	nəkk	‘nose’
paḷi	‘brought up’	kaḷi	‘black’
pita	‘drank’	kita	‘done’
paḷ	‘line, row’	kaḷ	‘famine’
paḷa	‘cold’	kaḷa	‘black’

[p]		[c]	
kəp	'cup'	kəc	'glass'
paḷ	'line, row'	cal	'gait'
nap	'measurement'	nac	'dance'
pər	'but'	cər	'graze'
pita	'drank'	cita	'leopard'
səp	'snake'	səc	'true'

[p]		[ṭ]	
paṭ	'division'	ṭaṭ	'sack cloth'
poṭa	'finger tip'	ṭoṭa	'piece'
pap	'sin'	ṭaṭ	'jute carpet'
pɛr	'foot'	ṭɛr	'mule'
po	'name of a month'	ṭó	to feel'
pola	'soft'	ṭola	'group'

[t]		[k]	
taḷ	'pond'	kaḷ	'famine'
lət	'leg'	lək	'waist'
tol	'to weight'	kol	'near with'
sʊtta	'slept'	sʊkka	'dry'

[t]		[c]	
tor	'gait'	cor	'thief'
tara	'star'	cara	'fodder'
nata	'relationship'	naca	'male dancer'
tə̃nd	'thread'	cə̃nd	'moon'

[k]		[c]	
kaka	‘small boy’	caca	‘uncle’
kəl	‘tomorrow’	cəl	‘go’
kɛc	‘glass’	məc	‘to flare’
sᴜkka	‘dry’	sᴜcca	‘pure’
kela	‘banana’	cela	‘disciple’
koṇa	‘corner’	coṇa	‘to milk’
[ph]		[th]	
phəl	‘fruit’	thəl	‘desert’
phəṛa	‘to give, to deliver’	thəṛa	‘platform’
səph	‘mat’	sath	‘place of gathering in a village’
saph	‘clean’	sath	‘company’
[ph]		[kh]	
phəṭṭa	‘plank’	khəṭṭa	‘sour’
phəl	‘fruit’	khəl	‘oil cake’
phaka	‘starvation’	khaka	‘sketch’
phaḷ	‘a small wedge’	khaḷ	‘drain’
leph	‘quilt’	lekh	‘fate, destiny’
phə́ṛ	‘you take it’	khə́ṛ	‘you stand or wait’
[ph]		[ch]	
phᴜàra	‘spring’	ćhᴜàra	‘fruit of date tree’
phaḷ	‘a small wedge’	chaḷ	‘jump’
phəḷ	‘fruit’	ćhəḷ	‘fraud’

[s]		[š]	
sək	‘bark of a tree’	šək	‘doubt’
ser	‘seer’	šer	‘lion’
sal	‘year’	šal	‘shawl’
sʊba	‘morning’	šʊba	‘doubt’

[m]		[n]	
mai	‘old poor woman’	nai	‘barbar’
maḷa	‘garland’	naḷa	‘stream, riverlet’
mar	‘beat’	nar	‘woman’
məgən	‘busy’	nəgən	‘naked’
mã́	‘mother’	nã́	‘name’
mami	‘mother’s brother’s wife’	nani	‘mother’s mother’
mera	‘mine’	nèra	‘darkness’
mí	‘rain’	ní	‘foundation’
mú	‘mouth’	nṹ	‘daughter-in-law’

[r]		[ṛ]	
tor	‘gait’	toṛ	‘pluck, break’
mor	‘peacock’	moṛ	‘turn’
nari	‘woman’	naṛi	‘vein
pər	‘but’	pə́ṛ	‘read’
pari	‘a name’	paṛi	‘torn’
jor	‘strength’	joṛ	‘joint’

dər	'time, turn'	doṛ	'run, race'
tə̀r	'to place, put'	tə̀ṛ	'lower part of the body
sara	'whole'	saṛa	'jealousy'

[l]		[ḷ]	
pali	'a name'	paḷi	'brought up'
goli	'maid servant'	goḷi	'tablet'
məl	'occupy'	məḷ	'rub'
boli	'language'	boḷi	'deaf (f)'
kal	'time'	kaḷ	'famine'
tol	'weight'	toḷ	'find'
gəl	'talk'	gəḷ	'neck, throat'
khəl	'bark of a tree'	khəḷ	'oil cake'

[j]		[z]	
səja	'to decorate'	səza	'punishment'
jərb	'fracture, hurt'	zərb	'multiply'
raj	'kingdom, rule'	raz	'secret'

[y]		[v]	
yar	'friend'	var	'attack'
yərk	'afraid'	vərk	'a leaf of gold or silver'
yətən	'try'	vətən	'mother land'

4. Phonemics

4.1. Vowel and consonant phonemes

4.1.1. Following are the vowel phonemes of Punjabi :

Non-Nasalized vowel phonemes

	Front	Central	Back
High	i		u
Lower high	ɪ		ʊ
Mid	e	ə	o
Mid-low	ɛ		ɔ
Low		a	

Nasalized vowel phonemes

	Front	Central	Back
High	ĩ		ũ
Lower high	ɪ̃		ʊ̃
Mid	ẽ	ə̃	õ
Mid low	ɛ̃		ɔ̃
Low		ã	

4.1.2. Consonant phonemes of Punjabi are given below :

Stops

p t ṭ k

ph th ṭh kh

b d ḍ g

Affricates

c ch j

Nasals

m n ṇ

Leterals

l l

Trill

r

Flap

ṛ

Fricatives

s š z f x g̣ h

Frictionless Continuant (Semi-Vowels)

y v

The consonant phonemes are given in the following table, indicating their manner and point of articulation :

Consonants	Bilabial	Labio-dental	Dental	Alveolar	Retroflex	Palato-Alveolar	Palatal	Velar	Glottal
Stops :									
Voiceless unaspirated	p		t		ṭ			k	
Voiceless aspirated	ph		th		ṭh			kh	
Voiced unaspirated	b		d		ḍ			g	
Affricates :									
Voiceless unaspirated						c			
Voiceless aspirated						ch			
Voiced unaspirated						j			
Nasals : (Voiced)	m		n		ṇ				
Laterals : (Voiced)				l	ḷ				
Trill : (Voiced)			r						
Flap : (Voiced)					ṛ				
Fricative :									
Voiceless		f	s			š		x	h
Voiced			z					g̣	
Frictionless Continuants		v					y		

4.2. Phonemic Distribution

4.2.1. Vowels

Phoneme	Initial	Medial	Final
/i/	i-	-i-	-i
/I/	I-	-I-	—
/e/	e-	-e-	-e
/ɛ/	ɛ-	-ɛ-	-ɛ
/ə/	ə-	-ə-	—
/a/	a-	-a-	-a
/u/	u-	-u-	-u
/ʊ/	ʊ-	-ʊ-	—
/o/	o-	-o-	-o
/ɔ/	ɔ-	-ɔ-	-ɔ

4.2.2. Consonants

Phoneme	Initial	Medial	Final
/p/	p-	-p-	-p
/ph/	ph-	-ph-	-ph
/b/	b-	-b-	-b
/t/	t-	-t-	-t
/th/	th-	-th-	-th
/d/	d-	-d-	-d
/ṭ/	t-	-ṭ-	-ṭ
/ṭh/	ṭh-	-ṭh-	-ṭh
/ḍ/	ḍ-	-ḍ-	-ḍ

Phoneme	Initial	Medial	Final
/k/	k-	-k-	-k
/kh/	kh-	-kh-	-kh
/g/	g-	-g-	-g
/c/	c-	-c-	-c
/ch/	ch-	-ch-	-ch
/j/	j-	-j-	-j
/m/	m-	-m-	-m
/n/	n-	-n-	-n
/ṇ/	—	-ṇ-	-ṇ
/l/	l-	-l-	-l
/ḷ/	—	-ḷ-	-ḷ
/r/	r-	-r-	-r
/ṛ/	—	-ṛ-	-ṛ
/s/	s-	-s-	-s
/š/	š-	-š-	-š
/z/	z-	-z-	-z
/f/	f-	-f-	-f
/x/	x-	-x-	-x
/g̣/	g̣-	-g̣-	-g̣
/h/	h-	—	—
/y/	y-	-y-	—
/v/	v-	-v-	—

4.3. Gemination

4.3.1. In Punjabi, all consonants except/ ṇ ṅ l r ṛ h y and v/ occur as geminates intervocally. Geminates are preceded by short vowels. Gemination of consonants is phonemic:

ṭəppa	'stanza'	ṭəpa	'jump'
lə́bba	'found'	ləbà	'find'
pətti	'a part of a village'	pəti	'husband'
uttər	'answer'	utər	'descend'
pɪtta	'gall bladder'	pɪta	'father'
kəttha	'catechu'	kətha	'story'
səddi	'called'	'sədi	'century'
mɪṭṭi	'clay'	mɪṭi	'erased' (f)
həṭṭi	'shop'	həṭi	'went away' (f)
sʊkka	'dry'	sʊka	'dry' (v)
sʊkkha	'a drug'	sʊkha	'to suit'
bəcca	'child'	bəca	'save'
səjja	'right'	səja	'decorate'
kəmmi	'worker'	kəmi	'deficiency'
cʊnni	'scarf'	cʊni	'picked' (f.sg.)
dɪlli	'Delhi'	dɪli	'heartedly'
kɪsse	'stories'	kɪse	'who' (obl)

4.4. Free variation

4.4.1. In the loan words from Persian and Arabic [z] and [j] are in free variation. [z] is in general retained in the speech of educated speakers, but it is substituted by [j] in colloquial speech. In some examples [y] is also substituted for [j].

Examples :

kəmzor	~	kəmjor			'weak'
məzdur	~	məjdur			'labourer'
zərur	~	jərur			'certainly'
zor	~	jor	~	yor	'strength'
roz	~	roj	~	roy	'daily'
məza	~	məja	~	məya	'taste'

4.4.2. In the loan words from Persian and Arabic [g̣], and [g] are in free variation. [g̣] is retained in the speech of educated speakers of the language and [g] is substituted for [g] in the speech of others.

Examples :

g̣ərib	~	gərib	'poor'
g̣əm	~	gəm	'grief'
g̣əzəl	~	gəzəl	'amatory poem
əg̣va	~	əgva	'seduction'
dımag̣	~	dımag	'brain'
teg̣	~	teg	'sword'

4.4.3. [x] and [kh] are in free variation, in the use of loan words from Persian and Arabic.

Examples :

xətra	~	khətra	'danger'
buxar	~	bukhar	'fever'
əxbar	~	əkhbar	'newspaper'
xərab	~	khərab	'bad'

4.4.4. [f] and [ph] are in free variation in the loan words from Persian and Arabic. [f] is used mostly by educated speakers of the language and it appears as [ph] in the speech of others.

Examples :

fɔrən	~	phɔrən	'at once'
faltu	~	phaltu	'spare'
fɛsla	~	phɛsla	'decision'
lɪfafa	~	lɪphapha	'envelope'
bərf	~	bərph	'snow'

4.5. Tones

4.5. Tone is phonemic in Punjabi. Examples of minimal pairs have been given in the section 2.4.

4.6. Allpphonic Distribution

4.6.1. Palatal and velar nasals have no phonemic status in Punjabi. Phonetically however, when followed by Palato-alveolar affricates and velar stops respectively these may be pronounced in the spoken language. Phonemecally they are treated as allphones of dental nasal.

5. Graphemics

In India, Punjabi is written in the Gurumukhi Script. The orthography is also called ‘p ɛ̃ ti’ as the number of its letters is thirty five. Gurumukhi is written from left to right.

Punjabi is a tone language but there are no separate symbols in the Gurumukhi script to mark the tones.

Gemination is Phonemic in Punjabi and is also marked in the script. The symbol for Gemination is called *əddək* [ੱ] and is marked on the preceding consonant or vowel symbol.

Nasality is distinctive in Punjabi. In the orthography two symbols are used for it : bĩdi [ਂ] and ṭɪppi [ੰ]. The signs of *bĩdi* and *ṭɪppi* are placed above the vowels. *ṭɪppi* [ੰ] is placed over inherent or clear vowel [ə] ਅ [ɪ] ਇ and with the *matras* of [ʊ] ਉ and [u] ਊ . *bĩdi* [ਂ] is placed over other vowels, e.g., [a] ਆ , [i] ਈ [e] ਏ, [ɛ] ਐ , [o] ਓ, [o] ਔ , and initial [ʊ] ਉ and [u] ਊ.

5.1. Phoneme-Grapheme Correspondence

The Shape of the letter	Value	Name of the Grapheme	Examples		
1	2	3	·	4	
ਪ	p	pəpa	ਪੀਲਾ	pila	‘yellow’
			ਅਪਣਾ	əpṇa	‘own’
			ਨਾਪ	nap	‘measurement’
ਫ	ph	phəppha	ਫਲ	phəl	‘fruit’
			ਨਫਾ	nəpha	‘gain’
			ਨਫਰਤ	nəphrət	‘hate’

1	2	3	4		
ਬ	b	bəbba	ਬਲ	bəl	'strength'
			ਟੱਬਰ	ṭəbbər	'family'
			ਕਿਤਾਬ	kɪtab	'book'
ਤ	t	tətta	ਤੱਤਾ	tətta	'hot'
			ਪਤਲਾ	pətla	'thin'
			ਲਤ	lət	'leg'
ਥ	th	thətha	ਥੈਲਾ	thɛla	'bag'
			ਮੱਥਾ	mətha	'forehead'
			ਰੱਥ	rəth	'chariot'
ਦ	d	dədda	ਦਿਨ	dɪn	'day'
			ਦਾਦਾ	dada	'grand father'
ਟ	ṭ	ṭɛ́ka	ਕੱਟਾ	kəṭṭa	'young buffalo (male)'
			ਟੋਕਰੀ	ṭokrɪ	'basket'
ਠ	ṭh	ṭhəṭṭha	ਠੀਕ	ṭhik	'right'
			ਕੋਠਾ	koṭha	'roof'
			ਉੱਠ	ʊṭh	'get up'
ਡ	ḍ	ḍəḍa	ਡੋਰ	ḍor	'thread'
			ਸਾਡਾ	saḍa	'ours'
			ਮੁੰਡਾ	mũṇḍa	'boy'
ਕ	k	kəkka	ਕਮਰਾ	kəmra	'room'
			ਕੰਮ	kəm	'work'
			ਨੱਕ	nək	'nose'
ਖ	kh	khəkkha	ਖਾਲੀ	khali	'empty'
			ਸੁਖ	sʊkh	'happiness'
			ਖੱਬਾ	khəbba	'left'

1	2	3	4		
ਗ	g	gəgga	ਰੋਗੀ	rogi	'sick'
			ਗੋਲ	gol	'round'
			ਸੋਗ	sog	'mourning'
ਚ	c	cəcca	ਚੰਦ	cə̃d	'moon'
			ਵਿੱਚ	vɪc	'in'
			ਚਾਰ	car	'four'
ਛ	ch	chəccha	ਛੱਤ	chət	'roof'
			ਛੇ	che	'six'
			ਛਾਲ	chal	'jump'
			ਕੱਛ	kəch	'armpit'
ਜ	j	jəjja	ਅੱਜ	əj	'today'
			ਕੁੱਜਾ	kʊjja	'earthen vessel'
			ਦਾਜ	daj	'dowry'
ਮ	m	məmma	ਮੇਰਾ	mera	'mine'
			ਅਮਰ	əmər	'immortal'
			ਕਮੀਨਾ	kəmina	'mean'
ਨ	n	nənna	ਨਲਕਾ	nəlka	'tap'
			ਚਾਨਣ	canən	'light'
			ਦੁਕਾਨ	dʊkan	'shop'
ਣ	ṇ	ṇəṇa	ਪਾਣੀ	paṇi	'water'
			ਚੁਣਨਾ	cʊṇna	'choose'
			ਮਣ	məṇ	'maund'
ਙ	ṅ	ṅeṅa	ਜੰਙ	jaṅ	'a marriage party'
ਞ			ਵੰਞ	və̃gã	'bangles'

1	2	3	4		
ਲ	l	ləlla	ਲਾਲ	lal	'red'
			ਜੰਗਲ	jə̃gəl	'forest'
			ਖੋਲ	khol	'open'
ਲ	ḷ	ləḷḷa	ਸਾਲਾ	saḷa	'wife's brother'
			ਨਾਲ	naḷ	'pipe'
ਰ	r	rara	ਰਸ	rəs	'juice'
			ਗਰਮ	gərm	'hot'
			ਪਾਰ	par	'across'
ੜ	ṛ	raṛa	ਮਾੜਾ	maṛa	'bad'
			ਮੋੜ	moṛ	'then'
			ਕੁੱਛੜ	kʊcchəṛ	'lap'
ਸ	s	səssa	ਪੈਸਾ	pɛsa	'money'
			ਬਾਸੀ	basi	'stale'
			ਦਸ	dəs	'ten'
ਸ਼	š	šəšša	ਸ਼ਾਮ	šam	'evening'
			ਸ਼ੋਰ	šor	'noise'
			ਜੋਸ਼	još	'enthusiasm'
ਫ਼	f	fəfa	ਸਫ਼ਰ	səfər	'travel'
			ਕਾਫ਼ੀ	kafi	'enough'
			ਸਾਫ਼	saf	'clean'
ਖ਼	x	xəxa	ਖ਼ਤ	xət	'letter'
			ਬੁਖ਼ਾਰ	bʊxar	'fever'
			ਅਖਬਾਰ	əxbar	'newspaper'

1	2	3	4		
ਜ਼	z	zəzza	ਜ਼ਮੀਨ	zəmin	'land'
			ਸਜ਼ਾ	səza	'punishment'
			ਰੋਜ਼	roz	'daily'
ਹ	h	həha	ਹਾਲ	hal	'condition'
			ਹੋਣਾ	hoṇa	'to be'
			ਰਾਹ	rá	'path'
ਯ	y	yəya	ਯਕੀਨ	yəkin	'faith'
			ਯਸ਼	yəš	'praise'
			ਯਰਕਣਾ	yərkəṇa	'to be afraid of'
ਵ	v	vəvva	ਵਾਲ	val	'hair'
			ਸਵਾਲ	səval	'question'
			ਵਾਲੀ	valli	'ear-ring'
ਘ	k`	kə̀gga	ਘੋੜਾ	kòra	'horse'
	´g		ਮੱਘ	mə́g	'pitcher'
	g`		ਪਘਾਰਨਾ	pəgàṛna	'to melt'
ਢ	ṭ`	ṭə̀ḍḍa	ਢੋਲ	ṭòl	'drum'
	´ḍ		ਮੁੱਢ	múḍ	'roots'
	´ṛ		ਵੱਢੀ	və́ḍḍi	'cut'
ਧ	t`	tə̀dda	ਧੋਬੀ	tòbi	'washerman'
	´d		ਦੁਧ	dúd	'milk'
	d`		ਸਿਧਾਇਆ	sidàia	'discipline
ਝ	´c	cə̀jja	ਝਾੜੂ	cáṛu	'broom'
	´j		ਮੱਝ	mə́j	'buffalo'
	j`		ਸੁਝਾਇਆ	sujaia	'pointed out'
ਭ	b`	pə̀bba	ਲਭਾਇਆ	ləbàia	'helped fine'
	p`		ਭਾਈ	pài	'brother'
	´b		ਲਾਭ	láb	'profit'

5.2. Vowels and Other Accessory Signs

Primary Shape	Value	Name of the vowel	Matra	Examples		
1	2	3	4	5		
ਅ	ə	mʊkta		ਅਕਲ	əkl	'wisdom'
ਆ	a	kənna	ਾ	ਆਉਣਾ	ɔṇa	'to come'
				ਰਾਹ	rá	'path'
				ਪੌਣਾ	pɔṇa	'three quarters'
ਇ	ɪ	sɪarɪ	ਿ	ਇੱਕ	ɪk	'one'
				ਪਿਆਰ	pɪar	'love'
				ਵਿੱਚ	vɪc	'in'
ਈ	i	biari	ੀ	ਕੀਮਤ	kimət	'price'
				ਜ਼ਮੀਨ	zəmin	'land'
				ਗੱਡੀ	gəḍḍi	'train'
ਉ	ʊ	ɔ̃kəṛ	ੁ	ਸੁਣ	sʊṇ	'listen'
				ਉਣ	ʊṇ	'knit'
ਊ	u	dulɛkṛe	ੂ	ਦੂਜਾ	duja	'second'
				ਸੂਚਨਾ	śucna	'information'
				ਸੂਰਜ	surəj	'sun'
ਏ	e	lã		ਮੇਲਾ	mela	'fair'
				ਰੇਤ	ret	'sand'
				ਨੇੜੇ	neṛe	'near'
ਐ	ɛ	dʊlavã	ੈ	ਸੈਰ	sɛr	'strolling'
				ਪੈਰ	pɛr	'foot'
				ਮੈਲ	mɛl	'dust' dirt'

1	2	3		4	5	
ਓ	o	hoṛa	ੋ	ਘੋੜਾ	kòṛa	'horse'
				ਮੋਰ	mor	'peacock'
				ਸ਼ੋਰ	šor	'noise'
ਔ	ɔ	kənɔra	ੌ	ਦੌੜ	dɔṛ	'race'
				ਮੌਰ	mɔr	'shoulder'
		ṭippi	ੰ	ਕੰਨ	kən	'ear'
				ਮੁੰਡਾ	mũnḍa	'boy'
				ਮੰਨ	mən	'agree'
		əddek	ੱ	ਨੱਕ	nək	'nose'
				ਸੱਚ	səc	'true'
		bĩdi	ਂ	ਕਾਂ	ka	'crow'
				ਤੋਂ	to	'from'
				ਕੁੜੀਆਂ	kuṛia	'girls'

5.3. Gemination

Gemination is indicated by the sign [˘] called *əddək* and is placed above and before the consonant to be geminated. Clusters of unaspirate stop plus homorganic aspirate stop are indicated by the use of *əddək* before the letter for the aspirate. e.g.

ਚੱਕੀ	cəkki	'flour mill'
ਪੱਖੀ	pəkkhi	'fan'
ਤੱਤਾ	tətta	'hot'
ਪੱਕੀ	pəkki	'ripe'
ਚੱਟ	cəṭṭ	'lick'
ਸੱਚ	səcc	'truth'
ਵੱਢ	vəḍḍ	'cut'

5.4. Conjunct Consonants

Three types of conjunct consonants are written in witch the modified from of the second consonant letter is subjoined to the first unaltered consonant letter. The second member consonant letters are ਹ, ਰ and ਵ. Exambles are given below:

Primary shape	Modified form	Value	Examples		
ਹ	੍ਹ	h	ਪੜ੍ਹ	pə́ṛ	'read'
			ਲ੍ਹਾ	là	'stir'
			ਨ੍ਹੇਰ	nèr	'darkness'
ਰ	੍ਰ	r	ਕ੍ਰਮ	krəm	'action'
			ਪ੍ਰੈਸ	prəs	'press'
ਵ	੍ਵ	v	ਸ੍ਵਰ	səvər	'tune'

5.5. Numerals

Gurumukhi	
੧	1
੨	2
੩	3
੪	4
੫	5
੬	6
੭	7
੮	8
੯	9
੧੦	10

5.6. Abbreviations

The sign : or a single dot is used to mark abbreviations.

ਪੋ: or ਪ੍ਰੋ:	for	profɛsər	‘professor’
ਡਾ. or ਡਾ:	for	ḍakṭər	‘doctor’

5.7. Table of Gurumukhi Letters

ੳ	ਅ	ੲ	ਸ	ਹ
ਕ	ਖ	ਗ	ਘ	ਙ
ਚ	ਛ	ਜ	ਝ	ਞ
ਟ	ਠ	ਡ	ਢ	ਣ
ਤ	ਥ	ਦ	ਧ	ਨ
ਪ	ਫ	ਬ	ਭ	ਮ
ਯ	ਰ	ਲ	ਵ	ੜ
ਸ਼	ਖ਼	ਗ਼	ਜ਼	ਫ਼

The combinations of consonants with matras known as the Gurumukhi *m^Uharni* is also given below :

ਅ ਆ ਇ ਈ ਉ ਊ ਏ ਐ ਓ ਔ ਅੰ ਆਂ।

ਸ ਸਾ ਸਿ ਸੀ ਸੁ ਸੂ ਸੇ ਸੈ ਸੋ ਸੌ ਸੰ ਸਾਂ।

ਹ ਹਾ ਹਿ ਹੀ ਹੁ ਹੂ ਹੇ ਹੈ ਹੋ ਹੌ ਹੰ ਹਾਂ।

ਕ ਕਾ ਕਿ ਕੀ ਕੁ ਕੂ ਕੇ ਕੈ ਕੋ ਕੌ ਕੰ ਕਾਂ।

ਖ ਖਾ ਖਿ ਖੀ ਖੁ ਖੂ ਖੇ ਲੈ ਖੋ ਖੌ ਖੰ ਖਾਂ।

ਗ ਗਾ ਗਿ ਗੀ ਗੁ ਗੂ ਗੇ ਗੈ ਗੋ ਗੌ ਗੰ ਗਾਂ।

ਘ ਘਾ ਘਿ ਘੀ ਘੁ ਘੂ ਘੇ ਘੈ ਘੋ ਘੌ ਘੰ ਘਾਂ।

ਙ ਙਾ ਙਿ ਙੀ ਙੁ ਙੂ ਙੇ ਙੈ ਙੋ ਙੌ ਙੰ ਙਾਂ।

ਚਾ ਚਾ ਚਿ ਚੀ ਚੁ ਚੂ ਚੇ ਚੈ ਚੋ ਚੌ ਚੰ ਚਾਂ।

ਛ ਛਾ ਛਿ ਛੀ ਛੁ ਛੂ ਛੇ ਛੈ ਛੋ ਛੌ ਛੰ ਛਾਂ।

ਜ ਜਾ ਜਿ ਜੀ ਜੁ ਜੂ ਜੇ ਜੈ ਜੋ ਜੌ ਜੰ ਜਾਂ।

ਝ ਝਾ ਝਿ ਝੀ ਝ ਝੂ ਝੇ ਝੈ ਝੋ ਝੌ ਝੰ ਝਾਂ।

ਞ ਞਾ ਞਿ ਞੀ ਞੁ ਞੂ ਞੇ ਞੈ ਞੋ ਞੌ ਞੰ ਞਾਂ।

ਟ ਟਾ ਟਿ ਟੀ ਟੁ ਟੂ ਟੇ ਟੈ ਟੋ ਟੌ ਟੰ ਟਾਂ।

ਠ ਠਾ ਠਿ ਠੀ ਠੁ ਠੂ ਠੇ ਠੈ ਠੋ ਠੌ ਠੰ ਠਾਂ।

ਡਾ ਡਾ ਡਿ ਡੀ ਡੁ ਡੂ ਡੇ ਡੈ ਡੋ ਡੌ ਡੰ ਡਾਂ।

ਢ ਢਾ ਢਿ ਢੀ ਢੁ ਢੂ ਢੇ ਢੈ ਢੋ ਢੌ ਢੰ ਢਾਂ।

ਣ ਣਾ ਣਿ ਣੀ ਣੁ ਣੂ ਣੇ ਣੈ ਣੋ ਣੌ ਣੰ ਣਾਂ।

ਤ ਤਾ ਤਿ ਤੀ ਤੁ ਤੂ ਤੇ ਤੈ ਤੋ ਤੌ ਤੈ ਤਾਂ।

ਥ ਥਾ ਥਿ ਥੀ ਥੁ ਥੂ ਥੇ ਥੈ ਥੋ ਥੌ ਥੰ ਥਾਂ।

ਦ ਦਾ ਦਿ ਦੀ ਦੁ ਦੂ ਦੇ ਦੈ ਦੋ ਦੌ ਦੇ ਦਾਂ।

ਧ ਧਾ ਧਿ ਧੀ ਧੁ ਧੂ ਧੇ ਧੈ ਧੋ ਧੌ ਧੰ ਧਾਂ।

ਨ ਨਾ ਨਿ ਨੀ ਨੁ ਨੂ ਨੇ ਨੈ ਨੋ ਨੌ ਨੰ ਨਾਂ।
ਪ ਪਾ ਪਿ ਪੀ ਪੁ ਪੂ ਪੇ ਪੈ ਪੋ ਪੌ ਪੰ ਪਾਂ।
ਫ ਫਾ ਫਿ ਫੀ ਫੁ ਫੂ ਫੇ ਫੈ ਫੋ ਫੌ ਫੰ ਫਾਂ।
ਬ ਬਾ ਬਿ ਬੀ ਬੁ ਬੂ ਬੇ ਬੈ ਬੋ ਬੌ ਬੰ ਬਾਂ।
ਭ ਭਾ ਭਿ ਭੀ ਭੁ ਭੂ ਭੇ ਭੈ ਭੋ ਭੌ ਭੰ ਭਾਂ।
ਮ ਮਾ ਮਿ ਮੀ ਮੁ ਮੂ ਮੇ ਮੈ ਮੋ ਮੌ ਮੰ ਮਾਂ।
ਯ ਯਾ ਯਿ ਯੀ ਯੁ ਯ ਯੇ ਯੈ ਯੋ ਯੌ ਯੰ ਯਾਂ।
ਰ ਰਾ ਰਿ ਰੀ ਰੁ ਰੂ ਰੇ ਰੈ ਰੋ ਰੌ ਰੰ ਰਾਂ।
ਲ ਲਾ ਲਿ ਲੀ ਲੁ ਲੂ ਲੇ ਲੈ ਲੋ ਲੌ ਲੰ ਲਾਂ।
ਵ ਵਾ ਵਿ ਵੀ ਵੁ ਵੂ ਵੇ ਵੈ ਵੋ ਵੌ ਵੰ ਵਾਂ।
ੜ ੜਾ ੜਿ ੜੀ ੜੁ ੜੂ ੜੇ ੜੈ ੜੋ ੜੌ ੜੰ ੜਾਂ।
ਸ਼ ਸ਼ਾ ਸ਼ਿ ਸ਼ੀ ਸ਼ ਸ਼ੂ ਸ਼ੇ ਸ਼ੈ ਸ਼ੋ ਸ਼ੌ ਸ਼ੰ ਸ਼ਾਂ।
ਖ਼ ਖ਼ਾ ਖ਼ਿ ਖ਼ੀ ਖ਼ੁ ਖ਼ੂ ਖ਼ੇ ਖ਼ੈ ਖ਼ੋ ਖ਼ੌ ਖ਼ੰ ਖ਼ਾਂ।
ਗ਼ ਗ਼ਾ ਗ਼ਿ ਗ਼ੀ ਗ਼ੁ ਗ਼ੂ ਗ਼ੇ ਗ਼ੈ ਗੋ ਗੌ ਗੰ ਗਾਂ।
ਜ਼ ਜ਼ਾ ਜ਼ਿ ਜ਼ੀ ਜ਼ੁ ਜ਼ੂ ਜ਼ੇ ਜ਼ੈ ਜ਼ੋ ਜ਼ੌ ਜ਼ੰ ਜ਼ਾਂ।
ਫ਼ ਫ਼ਾ ਫ਼ਿ ਫ਼ੀ ਫ਼ੁ ਫ਼ੂ ਫ਼ੇ ਫ਼ੈ ਫ਼ੋ ਫ਼ੌ ਫ਼ੰ ਫ਼ਾਂ।

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